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## INSIDE DOPE

Learn to live and laugh—  
Thus delay your epitaph

By **GEORGE  
F. TAUBENECK**

Stories of the Week  
Gags of the Week  
Verse of the Week  
Out of Our Mailbag  
Lace Panty Sports  
No Tigers? Or Lions?  
Diamonds Are G-E's  
Best Friend  
Who Doesn't Love  
Popular Music?  
What Is An Ama?  
What's Your Motto?  
The Pink Shirt Set  
Production Line Woes

### Stories of the Week

R-r-oaring and r-r-r-oaring like crazy, Mr. Lion pranced through an African jungle.

"Am I King of the Beasts?" he challenged every animal he met.

Hippopotami, giraffes, zebras, gazelles . . . even the truculent boars . . . agreed he was, and gave him leeway.

"Yes, Your Majesty," they chorused.

First elephant the lion encountered wasn't impressed. He curled Mr. Lion in his trunk, ricocheted him through a series of trees, and then stepped on him ponderously.

"Enough!" cried Mr. Lion. "Why be so difficult just because you can't answer a simple question?"

People are living longer in America. Hence, everybody and his brother Herman is worried about what we should do for the Old Folks at Home. Their collective endeavors for the aged have a scientific term: "Geriatrics."

An eagerbeaver business firm wants to market a canned-and-frozen food diet especially designed for The Elderly. "Geriatric" foodstuffs, however, might sound like medicine or even poison to those who should buy 'em, this corporation judges. Consequently, a new name is needed. Best suggestion we've heard:

"Grandfodder."

"There are many ways to make a fortune, but there's only one method of getting rich honestly."

"How?"

"Yak-yak," guffawed Man Number One. "I figured you wouldn't know."

### Gags of the Week

"That's the spirit!" exulted a "medium" when her seance table rose into the air.

When a plumber makes a mistake, he charges twice for it.

When a lawyer makes a mistake, he has a chance to try the case again.

When a doctor makes a mistake, he buries it.

When a judge makes a mistake, it becomes the law of the land.

When a preacher makes a mistake, nobody knows the difference.

BUT when the editor makes a mistake . . . Good night!

—ANON.

Washing a dog isn't so difficult. All you need is three cakes of soap, four tubs of water, and five hands.

(Continued on Page 8, Col. 1)

## '54 Freezer Sales Total 668,888 Units

NEW YORK CITY—Sales of home and farm freezers during 1954 by the 22 to 24 manufacturers reporting to the National Electrical Manufacturers Association totaled 668,888 units, NEMA reported recently.

The year-end figure was 16% under that of 1953 and was the lowest since 1950. Best year was 1952 when 814,086 units were sold.

December, 1954 sales, however, showed an 11% increase over the last month in 1953. They totaled 40,746 units divided among 22 firms.

For the year, sales of freezers within the United States declined 15%, those of Canada dropped

(Concluded on Page 35, Col. 1)

## Automatic Firing Shows Air-Cooled Residential Line

ST. LOUIS—A line of air-cooled, self-contained residential air conditioners in 2 and 3-ton sizes was announced recently by Sidney Strauss, president of the Automatic Firing Corp. here.

Both sizes are made for either horizontal or vertical installation, the company said.

The 2-ton unit has a capacity of 26,000 B.t.u./hr. at a 90° F. condenser ambient and an evaporator ambient of 80° d.b. or 67° w.b. at 800 c.f.m. The 3-ton size has an evaporator capacity of 37,000 B.t.u./hr. under the same conditions except that air speed is increased to 1,200 c.f.m.

The company stresses that the "Air-Cool-A-Matic" is a completely factory assembled unit and can be

(Concluded on Page 31, Col. 5)

## National Restaurant Show Set for Chicago May 9-13

CHICAGO—The National Restaurant Association will hold its annual convention and exposition at the Navy Pier here from May 9 through 13, the association announced recently.

Already 420 firms have signed up for exhibits, adding 63 new booths to the exhibit area. Exhibitors will include 51 firms manufacturing re-

(Concluded on Page 35, Col. 3)

## Kelvinator Shows 'Furniture-Type' Room Conditioners

DETROIT—Four "furniture-fashioned" models featuring leather-textured drop fronts to close the cabinet when not in use are featured in the 1955 Kelvinator room air conditioner line, D. A. Packard, general sales manager of Kelvinator Div., American Motors Corp., announced recently.

The new Kelvinator line includes eight models from ½ to 2 hp., two of them equipped with auxiliary heating for changing, off-season weather.

The furniture-fashioned fronts, according to Packard, have a soft sandalwood brown finish. The drop-front door has a leather style finish and accents of gold. Packard said that the furniture-fashioned front is Kelvinator's answer to those women who object to a room air conditioner's dust-catching open-front design.

Models RAC-85S, 85D, 105S, and 105D, ¾ and 1-hp. units, respectively, feature the furniture-fashioned design. They also have individually adjustable louvers on the front of the cabinet to diffuse and direct air to all parts of the

(Concluded on Page 35, Col. 1)

## Perfex Accepts G-C Offer To Purchase Instrument Div.

GLENDAL, Calif.—An offer by General Controls Co. here to purchase the assets of the Controls & Instrument division of Perfex Corp., Milwaukee, Wis., has been accepted, it was announced recently by W. A. Ray, president of General Controls.

The transaction involves the purchase of the assets of this division of Perfex in return for an undisclosed amount of General Controls preferred and common stock, Ray stated.

Financial terms of the negotiations were not revealed, except that Perfex plans to retain its General Controls stock as an investment, for the time being.

"Addition of the Perfex line of oil burner, limit, and other controls, electric water heater thermostats, and combustion instruments will add substantially to the future growth and diversification of our company," the General Controls president declared.

At the present time, General

(Concluded on Page 35, Col. 3)

## 1956 Refrigerators, Freezers Announced by Admiral Corp.

CHICAGO—Admiral Corp. has announced its 1956 line of refrigerators and freezers.

Four automatic "Dual-Temp" refrigerators, including an "up-side down" combination with a 120-lb. freezer at the bottom, and two new colors are features of the redesigned seven-model refrigerator

line. A 10-cu. ft. upright model retailing for \$199.95 highlights the restyled Admiral freezers.

Ross D. Siragusa, president of the company, said the new appliances were originally scheduled for announcement to the trade next November. But, he pointed out, when Admiral's marketing experts saw the pilot models, their enthusiasm prompted the company to bring out the line now.

Siragusa said an "already tight" production schedule was stepped up by more than eight months. He added that the 1956 line is a short one designed to minimize inventory problems.

The refrigerators and freezers were introduced to distributors in 79 cities March 8 during a nationwide closed circuit telephone meeting. The first in Admiral history, the telephone sales meeting originated from company headquarters here.

During this meeting, it was revealed that the company is offering its dealers a freezer-food plan financed by Commercial Credit Corp. The plan calls for a down payment of 10% on the freezer

(Concluded on Page 4, Col. 2)

## Duggan Resigns; Deny Rumors of Deepfreeze Sale

DETROIT—F. F. Duggan has resigned as vice president and general manager of Motor Products Corp.'s Deepfreeze Appliance Div., it was made known by A. L. Lott, Motors Products' chairman.

Later, a company spokesman scotched rumors that Motor Products is negotiating the sale of Deepfreeze. The spokesman labeled the reports "entirely false."

Effective date of Duggan's resignation is March 15. It is a result of Duggan's desire to enter business activities in the southeast, according to Lott. Duggan's new

(Concluded on Back Page, Col. 2)

## Sutton Announces Low-Cost Home Air Conditioning

WICHITA, Kan.—A complete home air conditioning unit that will allow the small homeowner to have central type air conditioning for about \$600 including a pre-fabricated duct system has been introduced by the O. A. Sutton Corp. here.

The new Vornado unit, known as the B200A, is designed to use no water and has a 2-hp. capacity. It delivers 22,000 B.t.u. It may be installed in attic, crawl space, garage, or utility room. Compressors, coils, and blowers are all contained in the one unit.

A new type insulated pre-fabricated ductwork that requires no sheet metal work is used. After the unit is placed, ductwork is connected by merely folding pre-scored sheets of ¼-in. thick Fiberglas board into rectangular shape and sealing the edge with a special adhesive tape.

The new type ductwork is

(Concluded on Back Page, Col. 4)

## Rigging Firm, Electrical Union Reach Compromise

DETROIT—A compromise agreement was reached last week in Wayne County Circuit Court in a dispute between a rigging firm and a local electrical union over setting of motors on centrifugal refrigeration units at the administration plant of General Motors Corp.'s Fisher Body Div. in Warren Township.

General Riggers & Erectors, Inc. here had filed suit against Local No. 58, International Brotherhood of Electrical Workers (AFL), to prevent the union from interfering with its work at the plant. The company asked for injunctive relief and damages.

The dispute involved only the setting of motors and not the actual installation of the refrigeration units.

In the bill of complaint, A. F.

(Concluded on Back Page, Col. 1)

## Curtis Adds 1½-Hp. Room Unit, Cuts 2 Prices

ST. LOUIS—Addition of a 1½-hp. room air conditioner and reduced prices on ¾ and 1-hp. models were announced recently by Curtis Refrigerating Machine Div. of Curtis Mfg. Co.

The new model will carry a list price of \$495.50, while the ¾-hp. unit will retail for \$342.95 and the 1-hp. unit for \$403.80.

Flush mounting, pushbutton controls, heater unit, and ventilating mechanism are features of all models.

## BEHIND PAGE ONE . . .

### How One Wholesaler Operates

Service Seen as Key to Success

16

### Air Conditioned Candy Plant

750-Hp. System Aids In Maintaining  
Quality Control In 8-Story Candy Kitchen

19

### Fair Trade News

21

### How Small Grocer Grew To 'Leading Merchant'

Lots of Refrigeration, New Location,  
Larger Store All Contribute to Growth

22

### Lower Home Air Humidities

Cycling Blower Operation Accomplishes It

29

### Specializing Proves Profitable

Commercial Firm Finds Many Advantages In  
Limiting the Type of Customers It Serves

30



## EI Plans 3 Talks on Air Conditioning At Annual Sales Conference March 28-31

NEW YORK CITY—Three talks on air conditioning are among the presentations programmed for the 21st annual sales conference of Edison Electric Institute.

The conference will be held March 28-31 at the Edgewater Beach hotel in Chicago. It will include a full-day home service meeting Monday, March 28; four concurrent sectional meetings Tuesday; general sessions Wednesday and also Thursday morning; and a general luncheon session Thursday noon.

One of the talks on air conditioning will be given by Philip Sporn, president of American Gas & Electric Service Corp., New York City. He will discuss "Year-Round Electric Heat and Air Conditioning and the Heat Pump" during the Wednesday afternoon general session.

At a meeting of the commercial sales group Tuesday, H. W. Brundage, general manager, Weathertron Dept., General Electric Co., will talk on "All-Electric Year-Round Air Conditioning." Brundage will speak during the morning session.

At the same time, B. R. Askew, manager, Industrial Power Sales Div., Georgia Power Co., Atlanta, will address the industrial power and heating group on "The Dollars In Air Conditioning."

In addition to Sporn, speakers scheduled for the Wednesday general sessions include Ralph J. Cordner, president of General Electric Co. He will outline future developments of note in the manufacture of electrical equipment, including appliances.

Also speaking Wednesday will be Harold Quinton, president of EEI and of Southern California Edison Co.; Dr. Jules Backman, professor of economics, New York university; J. H. Jewell, vice president, Westinghouse Electric Corp.; and Fred Smith, vice president-operations, The Gruen Watch Co.

A highlight of the Wednesday morning session will be the presentation of the annual awards honoring outstanding promotional activities by electrical utilities in various fields.

Thursday morning general-session talks will be given by John Worthman, Ft. Wayne, Ind. builder; Philip A. Fleger, chairman of the board, Duquesne Light Co.; and J. C. Doyle, sales and advertising manager, Ford Motor Co. Also planned is a lighting presentation.

William H. Gove, vice president and sales director, E. M. C. Recordings Corp., St. Paul, is to be the speaker at the closing luncheon Thursday noon. Gove

was recently selected "Professional Salesman of the Year" by the Sales Executive Club.

Among speakers on the program for the meeting Tuesday of the residential group is C. J. Prashaw, manager, range and water heater sales, Frigidaire. He will take a look at "The Future of the Industry."

At the same session, R. L. Coe, chairman of the Residential Promotion Committee, will speak on major appliance and electric housewares promotions. Other speakers will cover such topics as inter-industry coordination and adequate wiring.

### J. L. Hudson V.P. Sees Mich. Fair Trade Laws Hurting Small Business

EAST LANSING, Mich.—Read Jenkins, a vice president of J. L. Hudson Co., declared recently that either fair trade in Michigan should be entirely eliminated or "present state laws must be improved to prevent discrimination among retailers by manufacturers."

Addressing a business workshop at Michigan State college, Jenkins said big retailers can take aggressive action against discount operations but that this hurts small store owners.

"More smaller Detroit retailers are holding going-out-of-business sales than at any time since the early or middle '30s," he asserted.

## Lincoln, Neb. Kills Bill Designed To Regulate Liquidation Sales

LINCOLN, Neb.—An ordinance to regulate going-out-of-business and liquidation sales by appliance dealers has been killed by a 4-to-3 vote of the City Council.

Introduced by Councilman Joe Fenton, himself a former merchant, the measure was favored by many appliance dealers as well as the Lincoln Promotion Council and the Better Business Bureau.

The ordinance originally called for a \$100 permit to conduct a going-out-of-business sale. The permit would have been good for 30 days only.

In addition, the person or firm conducting the sale would have had to post bond of \$1,000, convince the City Council it was a bona fide going-out-of-business deal and not just a promotion to stimulate continuing business, and file a daily inventory with the City Clerk. Latter was intended to keep the sale operator from moving in appliances through the back door as fast as they went out the front.

Prior to final action, the measure was watered down. Fee for conducting a sale was reduced to \$1 and the time limit extended to 60 days. The bond and daily inventory provisions were deleted entirely. The Council would still have passed on the character of the proposed sale, however.

Mayor Clark Jeary, in voting against the ordinance, questioned advisability of setting up the city's legislative and enforcement machinery to control what he termed one small sphere of activity.

Councilman Fenton declared, however, that businessmen have the right to protective legislation the same as other groups.

## Dairy Supply Group Re-Elects All Officers

CHICAGO—Current officers of Dairy Industries Supply Association were re-elected, and all incumbents in positions on the board of directors were retained with one exception, at the 36th annual meeting of the dairy industrial supply and equipment group held here recently.

L. N. Lucas, The Bastian-Blessing Co., Chicago, was re-elected to his second term as president. S. E. Crofts, Batavia Body Co., Batavia, Ill., remains as vice president.

Roy E. Cairns, Waukesha Foundry Co., Waukesha, Wis., was retained as treasurer. John H. Mulholland, Milford, Del., is DISA's honorary president-for-life.

In the election of six men to DISA's 18-man board (each serves three years, with one-third of the board being elected each year) all incumbents in present positions were re-elected except Carl A. Wood, Cherry-Burrell Corp., (a DISA past-president) who has recently largely retired from activities with his firm. John G. Cherry of Cherry-Burrell was elected as an at-large director.

Incumbents retained in their board posts are:

At-large directors: T. A. Burress, The Heil Co.; and Paul K. Gorton, Gorton Mfg. Co.

Commodity directors: F. M. King, Wyandotte Chemicals Corp., for chemicals and refrigerants group; R. B. Wilhelm, Owens-Illinois, for containers group; and L. N. Lucas for point-of-sale materials group.

## Women's Shop Gets Cooling

ELMIRA, N. Y.—Air conditioning has been installed in the new women's special shop of Logan Rogers, Inc. at 110 N. Main St. as part of a modernization program.

## Price's, Inc. Wins Brand Names Award

NEW YORK CITY—The Brand Name Retailer-of-the-Year in the appliance store field is Price's, Inc., Norfolk, Va.

This was announced by Henry E. Abt, president of Brand Names Foundation, Inc., following a two-day meeting of 23 retailers who judged entries in the annual national competition at the offices of Brand Names Foundation, Inc.

Highest honor in the appliance store category of the competition went to Price's for outstanding presentation of manufacturers' advertised brands during 1954.

In addition to Price's, four appliance stores were cited with Certificates of Distinction.

They were: Lederer, Inc., Bridgeport, Conn.; Stucky Bros., Inc., Fort Wayne, Ind.; Wilson's Electrical Appliance Co., Gary, Ind.; and The Good Housekeeping Shop, Dallas, Texas.

The awards will be formally presented at the Brand Names Day dinner on Wednesday, April 13, in the Grand Ballroom of the Waldorf-Astoria hotel here.

## Perfection Stove Changes Its Name To Perfection Industries

CLEVELAND—Perfection Stove Co. stockholders, at their recent annual meeting, voted to change the name of the company to Perfection Industries, Inc.

It was also disclosed that Perfection sales in 1954 amounted to \$23,266,829.23—down \$8,859,375.58 from 1953. This reduced volume, together with certain price re-determination adjustments for the year 1953, contributed to a net loss of \$1,190,226.27 for the year 1954.

Other adverse factors were a sharp reduction in room air conditioner inventory values, similar to that experienced industry-wide and attributable to unseasonable summer weather, and the carrying back into 1954 of certain expenses which, for the first time under the 1954 tax law was permissible.

In 1953 the company had a net profit of \$953,209.43. Dividends of 25 cents per share per quarter were paid in both 1953 and 1954.

Concerning the name change, it was pointed out that the scope of the company's operations, since adoption of the present name in 1925, has been substantially broadened.

At the present time Perfection's business is concerned with a number of other products in addition to the ranges and cook stoves which were originally manufactured. These include furnaces, space heaters, water heaters, winterization equipment, air conditioners, aircraft parts, and other military equipment.

Perfection Industries, Inc. is the fourth name the company has had since its founding in 1888. It was started as the Cleveland Foundry Co., became the Cleveland Metal Products Co. in 1910, and was renamed Perfection Stove Co.



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## Atlanta Conference-- University of Missouri To Host Air Conditioning Conference March 28-29

(Concluded from Page 1)

for Thursday and Friday mornings, will be sponsored by ARI. Service demonstrations and talks sponsored by the RSES will be held on Thursday and Saturday evenings and Friday and Saturday mornings.

The Air-Conditioning & Refrigeration Wholesalers will also participate in the conference. The organization has called a special meeting of all wholesalers for 9 a.m. Saturday. The meeting, sponsored by ARW regions 4 and 12, will be concluded with a luncheon.

Social events on the program include a get-together party from 9 to 12 p.m. Thursday and an RSES banquet and entertainment starting at 7:30 p.m. Friday. The get-together will be held in the Old South Cocktail Lounge and the banquet in the Georgian Ballroom.

### Air Conditioning

The opening Thursday morning sales conferences will be devoted to expanding markets in air conditioning. Moderator George S. Jones, Jr., ARI managing director, will introduce:

Jack Aldridge, building specialist for *Life* magazine, who will speak on "Your Stake in the Home Building Industry."

C. M. Wallace, vice president in charge of sales for Georgia Power Co., who will discuss "The Expanding Market as a Utility Sees It."

Willie Mae Rogers, director of the Good Housekeeping Institute, who says housewives want "More Miracles, Please!"

S. E. "Chet" Stackpole, general sales manager, Heating and Cooling Div., Union Asbestos and Rubber Co., who will ask "Are You Asking Them to Buy?"

At 7 p.m. Thursday, Tom Feehan, vice president, and George Rosser, engineer, of Pivot Corp., will demonstrate a simplified installation of automobile air conditioning.

### Commercial Refrigeration

Starting at 9 a.m. Friday morning, the sales conference will turn to commercial refrigeration. Jones will introduce:

Dr. G. Hodges Bryant, managing director and chairman of the board of the Frozen Food Institute, Inc., who will describe "The Expanding Markets in the Frozen Food Industry."

D. H. Burrell III, vice president of Cherry-Burrell Corp., who will discuss "Modernization in the Dairy Field."

Starr Hull, executive secretary of the ARW, who will outline the "Wholesaler's Place in the Refrigeration Industry."

### Service

At 10:30 a.m., James Black, manager of field service for Philco Corp., will demonstrate "Changing Motor Compressors on Hermetic Refrigerators in the Field."

A third service engineering conference, moderated by Paul Reed, RSES international educational director, will start at 9 a.m. Saturday.

John D. Bopp, chief chemist of the Refrigeration Div., Ansul Chemical Co., will speak on "How Dry is Dry Enough?"

Otto J. Ress, chief engineer of Mueller Climatrol, Div. of Worthington Corp., will discuss "Servicing Oil Burners."

K. D. Cunningham, application engineer for Acme Industries, Inc., will conclude the morning session with a talk on "Cooling or Heating Water with the Heat Pump."

From 7 to 9 p.m. Saturday, Reed will moderate an "Information Please" session.

E. V. Dunbar of the E. V. Dunbar Co., Atlanta, is general chairman of the conference. Bert Kaple is co-chairman.

using absorption refrigeration controls, the heat pump in Missouri, proper application of cooling towers and air-cooled condensers.

The conference is sponsored by the Mechanical Engineering Department and Adult Extension Service of the university.

There will be a registration fee of \$10, which includes a dinner meeting and luncheon.

Those interested in attending should write Prof. Bolstad at the Mechanical Engineering Department of the university.

### Western RSES Plans Meeting in Tacoma, Wash. March 25-27

TACOMA, Wash.—Sixth annual educational conference of the Western International Association of the Refrigeration Service Engineers Society will be held in the Winthrop hotel here on March 25-27, Paul Darby, general chairman, announced recently. Social events are planned for the wives.

## \$1,000 Air Conditioning, Refrigeration Scholarship Offered by Hieatt Engineering

SAN LUIS OBISPO, Calif.—A \$1,000 air conditioning and refrigeration engineering scholarship has been made available at California State Polytechnic college here for a freshman student entering in September of this year. The donor of the scholarship is the Hieatt Engineering Co. of Burbank, Calif., the college announced recently.

The \$1,000 scholarship will be paid at the rate of \$250 per year so long as the recipient maintains a satisfactory standing in his courses in the air conditioning and refrigeration engineering department.

Applicants will qualify for the scholarship by taking an examination. Students who wish to apply may do so by sending a postcard to Harold P. Hayes, dean of engi-

neering at California State Polytechnic college.

The card should indicate the students interest in applying and the high school he has attended. The applicant should send a transcript of his high school grades to Dean Hayes also. The qualifying examinations will be given in or near the home community of the applicant. The closing time for applications is April 1, 1955.

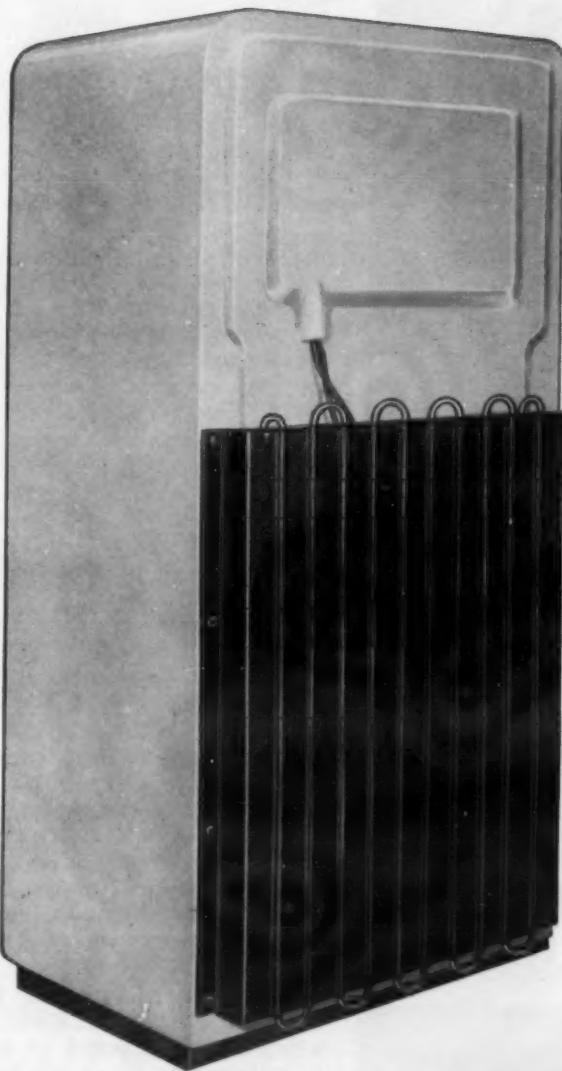
### Bill To Repeal Mfrs.' Excise Tax on Appliances Introduced

WASHINGTON, D. C.—A bill to repeal manufacturers' excise taxes on electrical, gas, and oil appliances effective July 1 has been introduced in the House of Representatives by Abraham Multer, New York Democrat.

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## Admiral Refrigerators, Freezers--

(Concluded from Page 1, Col. 5)  
but no down payment is required on the food. The freezer may be financed for 24 months and the food for four months.

Under the plan, it was reported, 5% is withheld on the freezer to build up a reserve against repossessions. The plan includes creditor's life insurance protecting the customer in case of freezer loss due to fire or theft; also, if the customer dies, the contract is paid up.

Styled in a motif of canyon copper trim with glacier tone porcelain enamel interiors, the new refrigerators feature a "magic ray" lamp that is said to prevent foods from trading flavors, a door opener that operates at the slightest touch, and an automatic disposal system for excess moisture.

The up-side down combination and the two-door Dual-Temp are offered in sea mist green and primrose yellow, in addition to white.

Available for the first time in the Dual-Temp models, which never require defrosting, is a 10.3-cu. ft. size with 70-lb. freezer capacity, the company said.

An 11-cu. ft. single-door model with 81-lb. freezer chest, a 12.4-cu. ft. two-door combination, and the single door 12 1/4-cu. ft. up-side down refrigerator complete the custom Dual-Temp line. The tops of these models now are flat so

that objects placed on them will not slide or roll off.

In addition to the four Dual-Temps, there are three deluxe models including a 9.5-cu. ft. "auto-defrosting" refrigerator.

"A separately-insulated full-width, sub-zero freezer chest is featured on all Dual-Temps," Admiral said. "The chests have capacities ranging from 70 to 120 lbs. of frozen food. They also incorporate a high speed freezing shelf formed by refrigerated coils and a bottom freezing surface."

"The models are equipped with a new Touch-o-Magic door opener which operates at the slightest pressure."

Jack M. Tenney, sales manager of Admiral's refrigerator division, said that CU13120, the up-side down model in the line, is a completely re-designed version of the combination introduced in 1954.

The freezer locker in the bottom section of the 12 1/4-cu. ft. refrigerator-freezer combination can store 120 lbs. of frozen food and has a separate door.

"The top, sides, and back of the locker are constructed of specially compounded high impact polystyrene which does not conduct heat or cold and does not collect frost," it was stated.

"The sub-zero locker has two anodized aluminum fast freezing shelves finished with tarnish-proof canyon copper. It is completely

sealed off from the general food storage compartment."

A "Dairy Chest," with its own separate door, is located on the interior provision door in the four Dual-Temp models: C1070, C1181, CU13120, and CT1381. It contains a butter tray, snack compartment, and three removable eggs racks each holding seven eggs.

Models C1070 and CT1381 have two door shelves in addition to the Dairy-Chest, while C1181 and CU13120 contain three door shelves which will accommodate various size bottles and packages.

The Dual-Temps have multiple glide-out shelves in the fresh food compartment.

In addition to ejector-type ice trays finished in canyon copper, Admiral is using a tray with 12 individual ice molds.

An automatic built-in door-stop that checks the refrigerator door at 130° of opening, preventing damage to walls or adjacent work surfaces, is incorporated on all 1956 models.

"Electric Moistrol," the new excess moisture disposal system, "is a thermostat-controlled unit which tests automatically for moisture every 15 minutes," Admiral explained. "If none is present it quickly turns itself off. If there is moisture in the pan, the unit will operate until the water is evaporated."

The 10.3-cu. ft. Dual-Temp model C1070 carries a suggested list price of \$349.95. No prices were given for the other Dual-Temp units.

Besides the Dual-Temp models, the line includes 7.3-cu. ft. model D745, 9.2-cu. ft. model D959, and 9.5-cu. ft. model DA960.

Model D745, with a suggested list price of \$199.95, has a 45-lb. freezer chest, full-width crisper and three door shelves. Priced at \$239.95, model D959 is equipped with a 59-lb. freezer chest, full-width crisper, butter keeper, and three door shelves.

Features of model DA960 include 59-lb. freezer chest, push-button defrosting, two large crispers, butter keeper, and three door shelves. Its suggested list is \$259.95.

The three uprights in the new freezer line feature circulating cold and high-speed freezing shelves, while the three chest models have "Dual-Freeze" control. All models are styled in tarnish-proof canyon copper finish and have glacier tone porcelain interiors.

Uprights feature the same squared-off flat top surface and the trim contours of the new Admiral refrigerators permitting them to fit neatly into space-saving locations, according to William Doyle, sales manager-freezer division. He said the new styling includes "cold-to-the-floor" design which provides freezing space the full height of the unit.

"The canyon copper quick-freezing shelves are of open grid construction and are formed by the triangular tubing which carries the refrigerant," it was explained.

"This tubing provides maximum freezing surface, while the open, vented shelf design permits free circulation of cold air throughout the interior, resulting in uniform low temperatures from top to bottom. All shelves, racks, and baskets are finished in canyon copper."

The 10-cu. ft. upright freezer (10U35), listing for \$199.95, has a frozen food capacity of 350 lbs. It contains two removable racks on the inner door, one for frozen food and the other for frozen juice, in addition to four quick-freezing shelves in the main storage compartment.

The 13.8-cu. ft. deluxe upright model (14UD49) has a capacity of 483 lbs., which the 12.4-cu. ft. freezer (12UD40) can accommodate 435 lbs. of frozen food. Both deluxe models have a refrigerated freezing plate in the top of the freezer.

The inner door of the largest upright freezer, the 13.8-cu. ft. model,

contains two swing-out frozen food racks and four removable frozen juice racks. There are five fast-freezing shelves in the main storage compartment.

Each of the swing-out shelves holds up to 24 standard-size packages of frozen fruits or vegetables. They drop down to form a shelf at the touch of a finger, permitting easy selection of any package.

The four removable juice racks, in between the top and bottom swing-out shelves, will hold 67 cans.

Two large glide-out storage bins at the bottom of the unit, the fronts of which also are styled in canyon copper, will accommodate bulky and odd-shaped packages.

The 12.4-cu. ft. upright model contains four fast-freezing shelves. The inner door has six deep-capacity shelves trimmed in tarnish-proof canyon copper, as is the front of the full-width storage basket at the bottom.

In the emblem on the door of the two deluxe uprights is a warning signal light which glows green when the freezer is operating at proper temperature. These models contain a protected automatic built-in interior light.

The three chest freezers in the line—13, 17, and 20-cu. ft. models with frozen food capacities of 460, 590, and 710 lbs., respectively—also have been restyled and can be readily incorporated in a built-in kitchen to blend with cabinets and work surfaces, Admiral said.

These models feature a Dual-Freeze compartment providing a separate area for fast-freezing of foods, and a special pastry rack.

Chest freezers also have built-in handle locks.

### UPRIGHT

Model	Capacity (Cu. Ft.)	Suggested List Price
10U35	10	\$199.95
12UD40	12.4	\$399.95
14UD49	13.8	\$479.95

### CHEST

13C46	13.2	\$429.95
17C59	17	\$479.95
20C71	20	\$549.95

The 1956 Admiral appliance line also includes ranges. No details on these were announced immediately.

## Tom Boy To Deliver Frozen Foods to St. Louis Homes

CHICAGO—A plan under which Tom Boy, Inc. will offer to deliver frozen perishables from its warehouse to the homes of St. Louis consumers was disclosed here recently.

Clem C. Krekeler, president of the 209-store voluntary operation, described the "self-service-at-home" program during the annual conference of the National American Wholesale Grocers' Association, held at the Hotel Morrison here. The plan is scheduled to be launched in the near future.

Krekeler said an expenditure of \$400,000 was involved in development of Tom Boy facilities, mainly those for freezing and packaging meat at the warehouse level.

A full line of frozen perishables will be offered under the warehouse-to-home program. These items will include frozen red meats, fruits, vegetables, sea foods, poultry, ice cream, and bakery and dairy products. The plan requires minimum orders of \$50.

Customers will use order forms to make their selections, with orders being placed through Tom Boy stores. The stores will get a 4% income on this business.

A new procedure will be used in central pre-cutting, sharp-freezing, and packaging of meats. This will include a wrap for meat similar to the wax-like one on gouda cheese.

After the meat is frozen, it will go into a dip tank on a conveyor belt and emerge in an airtight package. When the meat is thawed, the wrap can be peeled off. Krekeler said this treatment results in balanced humidity and better appearance.

the complete line of  
**HERMETIC**  
air conditioning  
COMPRESSORS by

# Tecumseh

ONLY

**Tecumseh**  
HAS  
the complete  
hermetic range  
1/2 thru 5 H.P.  
for

FURNACE UNITS  
WINDOW COOLERS  
STORE COOLERS  
WATER CHILLERS

Made to work under the toughest possible conditions, these compressors are designed to give you FULL TONNAGE. By changing only the electrical components, the larger sizes may be used for either water or air cooled applications.

Write today for BULLETIN #100 containing detailed information and specifications concerning Tecumseh's new line of Hermetic air conditioning compressors.

the world's largest producer  
of compressors for  
the refrigeration industry

**TECUMSEH PRODUCTS CO., TECUMSEH, MICH.**  
Export Dept. — P. O. Box 2280, 24530 Michigan Ave., W. Dearborn, Mich.





## TELLING and SELLING

A guide to smart advertising  
and merchandising practices.

This series of articles comprising ideas and principles for the small retail or manufacturing business is written by James D. Woolf, who was for more than 20 years a vice president and director of J. Walter Thompson Co., one of the largest advertising agencies.

### Secret of Selling Women— Use Product Facts, Not Poetry

By James D. Woolf

A new study made by the Hearst organization indicates that women influence 85% of all sales. This tallies with a similar Hearst study made in 1948.

Note that the figure refers to all sales—not merely to such merchandise as food and women's clothing.

According to this study, female influence is felt in masculine choices of pajamas (74%), shirts (70%), and underwear (70%).

Women even influence (40%) such traditionally male products as liquors, men's eye glasses, and motion picture projectors!

This information, of course, is not surprising. Businessmen have known for a long time that they should "Never underestimate the power of a woman."

But I suspect that at times we tend to forget this vital truth. I see a great deal of advertising that has little or no appeal to women's interests.

#### What Interests Women

One of the major things that interests women is other women. Research has proved that women are more interested in pictures portraying their own sex than in pictures of men. An illustration of Marilyn Monroe, for example, will catch their eye and hold their attention more effectively than a picture of Clark Gable.



("Women's chief interest is other women")

play suit for Susie, say, or pajamas for daddy—they are expert professional buyers.

Women, in fact, are far more expert than men—and more careful in their judgment—concerning everything they buy.

Men, by and large, are "impulse buyers." When they see something—a necktie, for instance—that appeals to their fancy, the sale is often made within seconds. Later, they are not sure whether the tie is made of silk, rayon, nylon, wool, or cotton.

Women, on the other hand, are shoppers: they will have the sales clerk drag out 50 ties in an agony of indecision. Then they will probably shop around at a couple of other stores before they finally buy. Their technique is that of the expert purchasing agent, and they'll bargain in the same way



("Men are impulse buyers. Women are shoppers with purchasing agent techniques.")

that their husbands in business bargain for a carload of cement or bolts and nuts.

#### Too Much Pretty Copy

There seems to be a notion held by some retailers that women—dainty, fragile, sentimental creatures that they are—respond swooningly to poetic copy.

Don't you believe it, says M. Wistar Wood, dean of the Charles Morris Price School of Advertising and Journalism. A recent issue of *Advertising Age* reports a talk he made before several hundred retailers at a weekly conference conducted by the United Business Men's Association and the Philadelphia School Division of School extension.

Wood told his audience that retailers today are using too much high-flying, absurdly dramatic and flowery copy. He said he wondered if "some stores are selling poetic mush instead of merchandise," and he feared that before long copywriters will be printing music with lyrics.

Wood warned storekeepers against using pretty copy as a common denominator of retail advertising. He urged them to adopt "realism," and to include in their copy just what a piece of merchandise will do for the customer.

Talk to women in your copy in the same way your most skillful and successful sales clerks talk to them over the counter. Product facts—not poetry—is the secret of selling women.

### In New Posts

#### Mikuta Appointed by Norge

CHICAGO — Appointment of Charles F. Mikuta as sales promotion manager of Norge has been announced.

In his new position, Mikuta will work under Jack Pettersen, director of the dealer development department. He replaces Raymond E. Miller, who has been named refrigerator sales manager.

#### Houdaille Promotes Ryan

DETROIT—Alfred C. Ryan has been appointed Merchandising Div. manager of the Houdaille-Hershey Corp. and will headquarter at the Detroit executive offices.

Ryan had for the past 10 years been manager of the Buffalo Div. of the corporation. He joined Houdaille in 1943.

#### A M Names Black, Hallas

DETROIT—Appointment of Howard E. Hallas as public relations director and Fred L. Black as special assistant to the president was announced recently by George Romney, president of American Motors Corp.

Hallas, formerly associate director of public relations, becomes head of the department with the elevation of Black to a new post of handling special assignments for the president.



## BOHN COLD WELDING

reduces final tubing dehydration 50%  
—at less cost than other methods!

Bohn's Cold Welding method of sealing aluminum refrigeration tubing is far more positive and yet less expensive. This gives Bohn customers a two-way saving:

- (1) The original cost of Cold Welding saves money over other methods.
- (2) Moisture content in grams per sq. ft. of internal surface can be held well below the maximum acceptable for refrigeration components.

This reduces the customer's dehydration time by more than 50%.

EVAPORATORS • ACCUMULATORS • FREEZER PLATES • TUBING • REFRIGERATION COILS

**BOHN ALUMINUM AND BRASS CORPORATION**

1400 LAFAYETTE BUILDING • DETROIT 26, MICHIGAN

Sales Offices

BOSTON • CHICAGO • CLEVELAND • DAYTON • DETROIT • INDIANAPOLIS • LOS ANGELES  
MILWAUKEE • MINNEAPOLIS • MOBILE • NEW YORK • PHILADELPHIA • ROCHESTER • ST. LOUIS



BOHN'S COLD WELDING method of sealing refrigeration tubing is the most positive and least expensive

**Demand IS FOR**

**CLEANABLE  
WATER-COOLED  
CONDENSERS**

1/2 to 25-Ton Capacity

**MORE EFFICIENT DOUBLE-TUBE  
COUNTER-FLOW DESIGN**

"New unit" efficiency is always maintained with H & M water-cooled Condensers because they are *cleanable*—quickly, economically. Do as the industry does—demand nothing less, for the cost is no more. Write for Catalog.

WHOLESALE IN PRINCIPAL CITIES

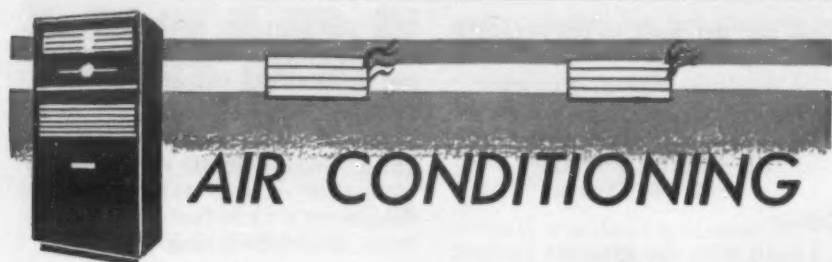
**Halstead & Mitchell**

BESSEMER BLDG. • PITTSBURGH 22, PA.









## Increased Air Conditioning Sales Help Boost Trane '54 Profits 10% Above '53

LA CROSSE, Wis.—Led by a substantial increase in sales of air conditioning products, total sales of the Trane Co. and its Canadian subsidiary reached \$50,247,483 last year, an increase of 10.5% over the \$45,482,615 in 1953, despite a decrease in defense business of \$3,700,000, D. C. Minard, president, reported recently.

Net earnings after taxes were \$3,403,373 in 1954, a 58.3% increase over the \$2,149,332 for the previous year. Earnings equalled \$2.84 per share compared with \$1.79 in 1953, based on the 1,200,000 shares outstanding after a stock split in December.

Sales have increased 350% over the last 10 years for Trane.

"The largest share of this growth in recently years has come from air conditioning sales," Minard said. "In 1954 sales of air conditioning products almost equalled sales in our stable heating lines."

Minard predicted a 10% increase in total sales in 1955 and another favorable year in earnings.

"The potential market for air conditioning is so broad," the president declared, "that apparently there is no way of accurately measuring it. So long as general business conditions are strong and healthy, the problem of the industry in the next decade will be to keep pace with the demand."

While Trane paid out 26% of its net earnings in dividends in 1954, the company re-invested 74% in the business, Minard further reported.

This included \$1,950,000 for new plants and equipment. The company added 50,000 sq. ft. of manufacturing area last year and is now midway in a construction program that will provide an additional 100,000 sq. ft. of space by 1956.

Last May the company opened a new million dollar research and testing laboratory in La Crosse.

## Dealer, Customers Work as Team To Plug Cooling

**Keep COOL**

At Home - In Stores, Restaurants Or At The Office  
You Can Keep Cool With Frigidaire Air-Conditioning

**FRIGIDAIRE COOLS The TOWN!**

Enjoy the Comfort of Frigidaire Air-Conditioning At the Following Business Houses:

- ★ ILLINOIS BROKERAGE
- ★ DALE'S JEWELRY
- ★ DIETZ STUDIO
- ★ THE NATIONAL BANK
- ★ WHITE COUNTY LUMBER CO.
- ★ GIDCUM JEWELERS
- ★ CARM'S STEAK HOUSE
- ★ STEIN'S FLOWERS
- ★ MAXINE'S DRESS SHOP
- ★ BARTON'S BARBER SHOP
- ★ D. E. GRAHAM & SON
- ★ PELAND CAFE
- ★ CROSBYVILLE, ILLINOIS

There's No Doubt About It - Air Conditioning is Here To Stay - And Frigidaire, As Always, Gives You The Utmost In Efficiency And Economy. So Remember - Whether You Want Your Air Conditioning Now Or Next Year - You'll Get The Best Deal With Frigidaire!

**BOHLEBER SALES & SERVICE**

22 North Church Street  
"Cool With It" - 2nd Fl.

TWO FULL PAGES of advertising tell the story. Frigidaire dealer lists his customers. In turn, cooperative ad by customers invites folks to visit their air conditioned stores, air conditioned of course by Frigidaire dealer Bohleber Sales & Service.

**BEAT the HEAT**

COME ON IN... THE WEATHER'S FINE!  
Enjoy the cool comfort of Frigidaire Air Conditioning at the business houses named below. Shop and do business at these places and you can laugh at the heat.

**KEEP COOL AND SAVE MONEY AT YOUR**

**ILLINOIS BROKERAGE**  
Our Powerful, New Frigidaire Air Conditioning Unit Was Installed For Your Shopping Comfort.

**DALE'S JEWELRY**  
See Our Advertisement of "Cool" Remotes On Page 1, Section 5 of This Issue of The Times.

**LET US HELP YOU BEAT THE HEAT!**  
A Frigidaire Air Conditioning Unit Will Be The Best Solution On Page 1, Section 5 of This Issue of The Times.

**BOHLEBER SALES & SERVICE**

**Don't Wait Until Cool Weather To Have A Portrait Made!**  
We Have Frigidaire Air Conditioning.

**IT'S COOL HERE!**  
We're Air Conditioned by Frigidaire.

**Don't Let The Heat Slow You Down!**  
Our office and display room are air conditioned by Frigidaire. See it's a good idea to come in and look over the benefits of these plans we have made for you and your business. We'll be the best of friends to you in the future.

**White County Lumber Company**  
100 North 1st Street, La Crosse, Wis.

CARMI, Ill.—An unusual bit of advertising and promotion was observed in an edition of the newspaper, *Carmi Times*, here last summer.

The Bohleber Sales & Service Co., dealer in Frigidaire air conditioning equipment, had installed air conditioning units in many of the town's local retail establishments.

Being a great believer in advertising and promotion, Bohleber struck up an agreement with these merchants that they take portions of advertising space on a full page of the paper, and mention Frigidaire air conditioning along with

their regular advertising copy.

He in turn would take a full page himself, listing them as users and inviting readers to enjoy cool comfort while shopping in their stores. The merchants agreed to this idea.

His full-page ad ran the banner headline, "Frigidaire Cools The Town," with a listing in bold type of his participating customers. On the opposite page were the retailer's ads, which contained a line plugging Frigidaire air conditioning.

The results were more sales for the Bohleber firm and goodwill all around.

## Lesieur Named Typhoon District Sales Manager In New England Area

BROOKLYN — Henry Lesieur has been appointed a district sales manager for the Typhoon Air Conditioning Co., Inc., it was announced by Mark E. Mooney, Typhoon's vice president in charge of sales.

A veteran of 15 years in the refrigeration and air conditioning field, Lesieur was formerly a district manager in the New York metropolitan area for a manufacturer of air conditioning equipment. His previous associations include a number of New England refrigeration and air conditioning firms, where he held positions as service engineer, sales engineer, and chief air conditioning engineer. He has also owned and operated his own service business.

Making his headquarters in Harrisville, R. I., Lesieur will supervise sales of Typhoon's line of packaged air conditioning equip-

ment in the states of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island, and in parts of upper New York state.

## Worthington Signs New Cuban Distributor

HARRISON, N. J.—Worthington Corp.'s Air Conditioning & Refrigeration Export Div. has recently announced the signing of the General Electric Cubana, S.A. as new distributor in Cuba.

Stuart C. Gee, president of General Electric Cubana, and Nathan A. Gardner, manager of Worthington's Air Conditioning & Refrigeration Export Div., said the General Electric Co. will act as sole distributor in Cuba of Worthington air conditioning and refrigeration equipment. The two officials explained that Worthington equipment along with General Electric's window air conditioning units will provide Cuba with a single source for every application from homes and offices to entire buildings.

**JUST ASK US**  
For "easy-to-get" product information... use coupon on "What's New" page.

for a variety of applications use

**MIDWEST CENTRIFUGAL PUMPS**

- EVAPORATIVE COOLERS
- CONDENSATE PUMPS
- BEVERAGE COOLERS
- HUMIDIFIERS
- TO YOUR SPECS.

25-42-50-60 CYCLE  
6-12-110-220 VOLT AC-DC  
HEADS UP TO 10 FEET  
GPH UP TO 225 GAL. AT 6 FOOT

We solicit inquiries

**TECH-TRON CORP.** LAWRENCE, KANSAS

## stations on air conditioning

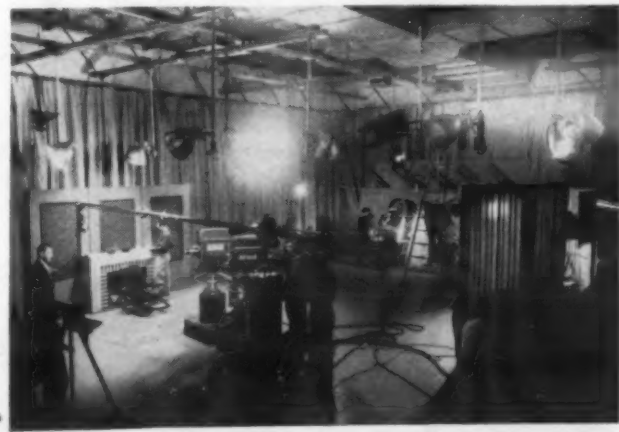
### INSTALLATION AT KSTP-TV ILLUSTRATES SALES POINTS

Tell your prospective clients in the television field the story of KSTP-TV—the NBC Television Network station in Minneapolis-St. Paul. Management people at KSTP-TV, which has the country's largest independent-station facilities, decided that air conditioning was an absolute "must." Without it, heat from banks of 2000-watt lights would melt make-up and damage props, besides making actors too uncomfortable to concentrate on good performances. The system chosen was designed by the G. M. Orr Engineering Company, installed by Northern Air Conditioning Company, both of Minneapolis.

### System solves problems of air movement, noise and changing heat load

Lighting and occupancy of a TV studio change rapidly. One moment there's a single spotlight on one actor; the next finds a bank of floodlights shining on the entire set. And there may or may not be a studio audience. At the same time, the air conditioning system has to operate quietly and maintain a constant temperature. This quiet operation is achieved at KSTP-TV by (1) lining ductwork with 1½-inch glass-wool acoustical material, (2) supporting ducts from ceiling members with floating-type hangers, and (3) connecting ducts with the air handling unit by a slip joint lined with a 1-inch layer of felt.

Another problem is posed by studio props, which are highly expendable and therefore usually built of thin canvas and light plywood. Air currents would tend to flutter or sway these props (imagine a painted drop of a skyscraper swaying in the breeze!). So diffusers are designed to keep air velocity below 25/ft. min. in a zone up to 12 feet above the studio floor.



There's a very sensitive microphone on this long boom in the main studio. Also, many props—like the wall and fireplace at rear left—are light in weight. Low air velocity solves the two problems of noise and prop movement.

### "Freon" refrigerants used in direct expansion system

A 50-ton Trane reciprocating compressor supplies "Freon" fluorinated hydrocarbon refrigerants to direct expansion coils in two air handling units. One of these units cools the two main studios; the other cools offices, control rooms and dressing rooms. On the roof is the 50-ton evaporative condenser.

Direct expansion systems like this really call for "Freon" safe refrigerants. They're nonflammable, non-explosive, virtually non-toxic... and they meet all building-code requirements.

Another important point to remember is that Du Pont watches over the production of "Freon" refrigerants carefully. Samples are drawn and tests made at every point from raw materials to filled shipping cylinders. The result is a product of such uniformity and purity that it contributes to the long, efficient service of equipment.

No matter what type of installation you are working with, or how large it is, you'll find Du Pont "Freon" refrigerants ideally suited for it. If you want further information on "Freon" refrigerants or help with installation problems, contact E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division 23, Wilmington 98, Delaware.

**KINETIC**

**F R E O N**

SAFE REFRIGERANTS

"Freon" is Du Pont's registered trade-mark for its fluorinated hydrocarbon refrigerants

**DU PONT**

BETTER THINGS FOR BETTER LIVING... THROUGH CHEMISTRY



# INSIDE DOPE

Learn to live and laugh—  
Thus delay your epitaph

By **GEORGE F. TAUBENECK**

(Continued from Page 1, Col. 1)

## Verse of the Week

WHEN

When you've twinges in your hinges  
After reveling in binges  
And you realize that Nature's  
unforgiving,  
When arteriosclerosis  
Interferes with your osmosis  
And you wonder whether life is  
worth the living,  
When your head is nearly  
splitting  
Whether lying down or sitting  
And you answer every question  
with a "Bah,"  
When your opticals are blurry  
And your tongue is dry and furry  
And your favorite comestible is  
blah,  
When your stomach is complain-  
ing  
And a lot of things are paining  
And you're feeling very strictly on  
the bum,  
When the future's looking  
gloomy,  
Lurid, lusterless, and rheumy

And you once again forswear the  
Demon Rum,  
When all vestige of ambition  
Has surrendered to contrition  
And you care not whether school  
keeps up or not,  
When you feel that all around  
you  
Evil forces seek to hound you  
And it seems that everything has  
gone to pot,  
Well, there's little one can do for  
Such a melancholic goofer  
But to tell him it could easily be  
worse.  
As to ills that men inherit,  
One must simply grin and bear it  
Till he takes his final journey in a  
hearse.

—ANON.

## Out of Our Mailbag

D. J. Renwick  
Michigan State College  
East Lansing

Editor:

The issue and serial number of  
each issue of the NEWS is quite  
handy to use for filing purposes; a  
little faster than using the date of  
issue to check for missing or out-  
of-order filing. However, invariably  
the mailing label is stuck right  
across this handy serial number.  
It does scrape off (if done with  
care so as not to go clear thru  
the whole page) and my finger  
nails are worn clear to the bone  
trying to reclaim the filing use of  
these numbers on all the issues I  
have. And I've got quite a few

saved up—a whole filing cabinet  
full. Someday I intend to cut them  
up and file the better articles ac-  
cording to subject matter.

But meanwhile, I just file them  
away after scraping away the  
labels. For awhile I tried the  
scraping in batches, but the wife  
complained too much of the mess.  
Those little bits of pink paper just  
don't float into the waste basket  
very well. So now I scrape away  
on each issue as it comes and she  
doesn't seem to notice the mess.  
Also my finger nails almost get a  
chance to grow back again to their  
full length each week. Really I  
suppose it saves a great deal of  
finger nail trimming time. But I've  
been considering very seriously  
getting a freezer to freeze the  
whole label off nice and clean like  
worked so dandy during gas ration  
stamp times.

Or maybe your stamp sticker  
could aim at some other spot on  
the front of the NEWS and miss  
this vital spot. Is there another  
spot that might not be so vital?  
Pretty crowded for space and im-  
portant printing, isn't it? How  
about pushing the printing around  
a bit and providing enough space  
for the label? In any case, if you  
don't find it convenient to do some-  
thing about it, I'll probably keep  
right on subscribing and either  
give up scraping or continue to  
suffer along and make the best of  
it. After all it could be worse. At  
least the issues come through very  
regularly.

Guess I'd better stop this non-

sense and get back to my scraping  
and filing.

D. J. RENWICK

Kelvinator Exp. Div.  
51, Rue La Fontaine  
Paris 16, France

Editor:

I read with the greatest interest  
the article entitled: "How to defeat  
competition" printed in the Nov. 15  
issue. . . .

Only one thing troubles me:  
Did my competitors read it too?

A. DELALANDE

## Lace Panty Sports

*Sports Illustrated*, the lace-  
panties magazine launched by  
*Time-Life-Fortune* late in 1954,  
hasn't satisfied a lot of genuine  
sportsfans.

Friend of ours in Kansas City  
summed up this reaction chort-  
lingly in a letter to that publica-  
tion. Said friend, understandably  
elated by the transfer of the Phila-  
delphia Athletics to Kansas City,  
was miffed because *Sports Illus-  
trated* practically ignored this  
truly tremendous event. If you're  
familiar with SI, you'll love this  
quote from his letter:

"Jimmy Jemall and Alpha Xi!  
but I'm tired from wheelbarrowing  
it at old Devonshire and heaving a  
bit of caber in the Braemar thing.  
Still, I was up with the hounds  
this morning to get your slant on  
the Big Baseball Franchise Switch,  
the third in 54 years. Provincial  
of me, but it's only a few kilom-  
eters to Kansas City, you know  
(not really much farther to Las  
Vegas).

"The momentous move having  
occurred too late for your Nov. 15  
issue, my curiosity was rampant  
to see the Nov. 22 number with all  
its pictures of K.C. fans readying  
the Pony Express for their opening  
day trip to the ball yard, Indians  
trading player cards and a gigantic  
pullout of a rare old George Caleb  
Bingham (piece) called 'Rounders  
on the Prairie.'

"Westward Ho! and a few thou-  
sand words on the natives' first  
meeting with Sport, Wonderful  
World of. But Stamps, Sweaters,  
and Pedwings, I forgot! Not a color  
shot of the Stockyards at Night in  
the file. Anyway, isn't baseball  
played in the summer between the  
Quoits and Lawn Bowling sea-  
sons? And just where is Kansas  
City anyway? . . ."

## No Tigers? Or Lions?

General Sales Manager of Chev-  
rolet is Bill Fish.

Bill Bird is General Sales Man-  
ager of arch-rival Plymouth.

Although fowl play might be  
suspected, there's nothing fishy  
about the situation.

## Diamonds Are G-E's Best Friend

Immense publicity attached to  
General Electric's production of  
the first synthetic diamond.

At a cost of more than \$500,000  
some G-E scientists made a dia-  
mond speck worth approximately  
\$10.

Immediately G-E stock rose four  
points. Shares of the De Beers  
diamond syndicate took their worst  
tumble in 40 years.

How silly can the Bulls and  
Bears get?

## Who Doesn't Love Popular Music?

Carrier Corp. is proud of a pro-  
motion specialist who has taken  
the song out of his heart and put  
it to work selling air conditioned  
homes and here's how:

The music of Frank Porter, a  
Carrier salesman, helped sell air  
conditioning in Westchester Vil-  
lage, a 650-home project on the  
outskirts of Birmingham, Mich.

Representative of three different  
periods—Early American, French  
Provincial, and Modern—these  
homes feature a host of pace-set-

ting innovations. Some (in addi-  
tion to year-round air condition-  
ing by Carrier) include built-in re-  
frigerators and freezers.

Porter took advantage of the  
"hi-fi" Select-o-matic record player  
—another of this \$18,000,000 de-  
velopment's ultra-features—to pro-  
mote air conditioning.

Each ranch-type dwelling sits on  
half an acre. To Frank, who spent  
six years in show business before  
joining Carrier, that boundary was  
music to his ears. Together with

(Concluded on Page 11)

## "Stories of the Week" In Handy Form



In response to hundreds of re-  
quests from AIR CONDITIONING &  
REFRIGERATION NEWS subscribers,  
the conductor of its "Inside Dope"  
column has collected and grouped  
his best "Stories of the Week."  
They are now available in con-  
venient book-form for your read-  
ing and working pleasure. The  
book is entitled: "You'll Love  
This One."

Everyone will enjoy reading this  
book, we hope, but for the sales-  
man—and for anyone who may be  
called upon to "say a few words"  
at a meeting—it should have espe-  
cial appeal.

Here's why: this book of good  
stories you can tell is printed on  
thin paper, bound in flexible  
leatherette, and designed to fit  
neatly into your inside coat pocket.

While waiting in an anteroom  
to see Mr. Bigdome, the sales  
representative can thumb through  
it and pick out four or five per-  
tinent jokes which are guaranteed  
to put his prospect in a good mood.

The man about to make a speech  
—or one who figures he may be  
asked to rise and shine extempo-  
raneously—can consult it surrep-  
titiously while the toastmaster is do-  
ing his stuff. Although it's jam-  
packed with grand tales, it isn't  
bulky. Rather, it's unobtrusive.  
Looks more like a leather wallet  
than a book.

You can be the life of the party  
if you've memorized some of the  
anecdotes in this book. Everybody  
loves a good story well told—and  
all the jokes in this book have  
been tested on tough audiences,  
both large and intimate, by the  
author.

Within its 236 thin-paper pages  
more than 200 sure-fire laughs are  
presented. You can use it profit-  
ably, and so can your friends. It's  
handsomely turned out, and will  
make an appreciated gift any-  
time.

PRICE: \$1.00

(Write for quantity discounts on  
5 or more copies.)

Order directly from: **Business  
News Publishing Co., 450 West  
Fort St., Detroit 26, Mich.**

BUSINESS NEWS PUBLISHING CO.  
450 W. Fort St., Detroit 26, Mich.

GENTLEMEN:  
Please send me ..... copies of "You'll  
Love This One" at \$1.00 per copy. ☐ Check  
enclosed. ☐ Please bill me.

Name .....  
Address .....  
City ..... Zone ..... State .....

3-14-55

get the features that count . . .

# evaporative condensers

## FASTEST RATE OF HEAT TRANSFER

. . . achieved by blower-induced, constant  
velocity air flow plus complete water atomi-  
zation and diffusion over all-prime-surface  
coils (either copper or hot-dip galvanized  
steel).

## UNSURPASSED STRENGTH AND DURABILITY

. . . they're built of heavy gauge steel and  
completely hot-dip galvanized after fabrica-  
tion. Finish can't be scratched, won't rust  
under severest operating conditions.

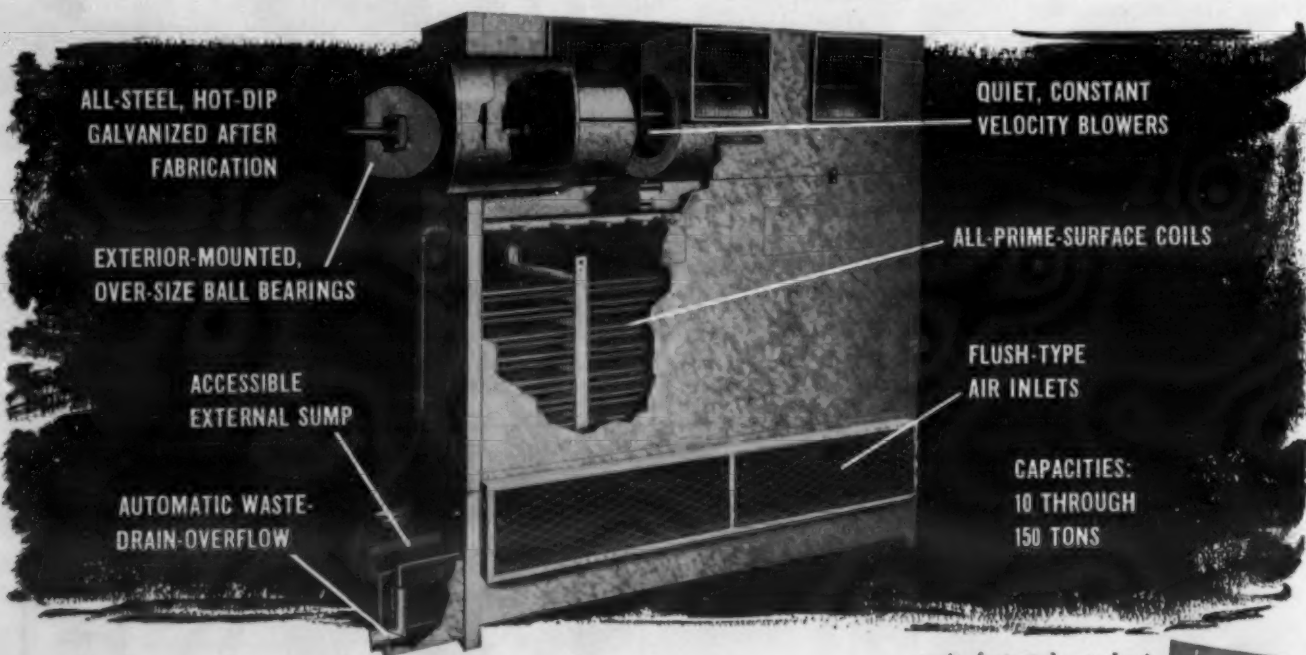
## COMPLETELY ACCESSIBLE FOR SERVICING

New external sump box contains water treat-  
ment basket, removable sediment screen  
and automatic waste, drain and overflow,  
all reached by simply lifting the sump cover.

## USE INDOORS OR OUTDOORS— WITH OR WITHOUT DUCTS

Acme's centrifugal blowers (not fans) are  
quiet and efficient in any indoor or outdoor  
location — have ample capacity for use with  
ductwork. You get "performance as rated"  
— and better!

and you'll like the COMPACT SIZE . . . compare their space-saving dimensions!



write for catalog, today!



**ACME INDUSTRIES, INC.**  
JACKSON, MICHIGAN

Manufacturers of Quality Air Conditioning and Refrigeration Equipment since 1919

Evaporative Condensers	Shell-and-Tube, Shell-and-Coil Condensers	Heat Exchangers
Cooling Towers — 2 to 70 tons	Flow-Cold packaged Liquid Chillers to 15 tons	Liquid Receivers
Bio-Cold Unit Coolers	Flow-Therm packaged Liquid Chillers to 220 tons	Flow-Temp Heat Pumps
Dry-Ex (direct expansion) Liquid Chillers		Hi-Peak Water Coolers
		Oil Separators

ACME INDUSTRIES, INC.  
Jackson, Michigan

Please send me Catalog No. 500 on  
Acme Evaporative Condensers.

Name .....  
Address .....  
City ..... State .....



**Millions**  
of ice cube trays  
will be sold  
this year!

*Inland's National Advertising  
creates more sales for you!*

Yes, there's a huge market for replacement ice cube trays. Just think—there are nearly 50,000,000 ice cube trays in use today that were made five or more years ago! That means one thing—the owners are replacing those worn out, inconvenient trays with the new, modern ice cube trays having the "Magic Touch" lever.

**Display 'em...  
and you'll sell 'em!**

Ice cube trays are impulse items. People will see these Inland advertisements which will appear in the Saturday Evening Post and Ladies' Home Journal... they'll see the trays displayed in stores... and they'll buy them. So, get a good share of these sales by displaying the trays in a prominent place in your store. And to take full advantage of Inland's great advertising, display the trays while the ads are "hot"... during the months of March, April, May, June, July and August. If you don't have a stock of these trays on hand—ready for the big drive—order them from the refrigerator manufacturer... today, sure! They're Ice Cube Trays with the "Magic Touch" lever.

What makes 'em  
**PERFECT**  
—in a hurry?



More new-sized cubes from the

**INLAND** "Magic<sup>\*</sup>Touch"  
**ICE CUBE TRAY**

JUST FLIP the "Magic Touch" lever on this colorful Inland Tray and you have three full rows of sparkling ice cubes—in the new, faster-cooling size... designed to fit any glass. For the latest in ice cube convenience with your pres-

ent refrigerator, replace those old, worn out trays with smart, new Inland "Magic Touch" Ice Cube Trays. They come in 4 gay colors, bronze, natural aluminum, gold and blue—one just right for you... at your dealer's.



Be sure your new refrigerator is equipped with Inland "Magic Touch" Ice Cube Trays. Ask your dealer for them.

INLAND MANUFACTURING DIVISION  
General Motors Corporation • Dayton, Ohio



here's  
a  
good  
way  
to  
get  
refrigerator  
prospects

***Inland's advertising...  
jam-packed with impact...  
will help you!***

Of the millions of people who'll be buying replacement trays in 1955, many will be owners of old, nearly worn out refrigerators. And they're the people you want to reach—because they are hot prospects for new refrigerators!

To get these prospects, display "Magic Touch" Ice Cube Trays in your window, in your store . . . when you demonstrate a refrigerator, call the prospect's attention to the modern, convenient ice cube trays they'll be getting . . . and feature them in your advertising.

Colorful, hard-selling Inland advertisements like the one on this page will be appearing in the Saturday Evening Post and Ladies' Home Journal from March through August—so plan to tie-in your displays during the months these ads appear.

What makes a  
party **DELIGHTFUL**  
—in a hurry?



More new-sized cubes from the  
**INLAND** "Magic Touch"  
**ICE CUBE TRAY**

THE "MAGIC TOUCH"—an easy flip of the "Magic Touch" lever on this brightly colored Inland Tray. That's all you do . . . and you have three full rows of sparkling ice cubes—in the new faster-cooling size, designed to fit any glass.

Replace those worn out trays in your refrigerator with smart, new Inland "Magic Touch" Trays—the latest in ice cube convenience. Four gay colors: natural aluminum, gold, blue and bronze—one just right for you . . . at your dealer's.



*Be sure your new refrigerator is equipped with Inland "Magic Touch" Ice Cube Trays. Ask your dealer for them.*

INLAND MANUFACTURING DIVISION  
General Motors Corporation • Dayton, Ohio



## INSIDE DOPE

Learn to live and laugh—  
Thus delay your epitaph

By **GEORGE F. TAUBENECK**

(Concluded from Page 8)

Carl Kurz of Garling Realty Co., he composed a rhythmic tune to fit the title "Half 'N Acre."

Songstress Wyoma Winters made a recording of their song. To date, 6,000 copies of this record have been employed as a selling tool for the 323-acre project.

While in New York, Frank composed another song entitled "A Parting Gift," which will be given nationwide distribution by another recording company. When the record was played for Les Paul and Mary Ford over long distance telephone, these noted celebrities asked permission to make a recording of the ballad using their own style.

Born in the coal mining community of Ashland, Ky., Frank Porter became interested in folk music as a boy. Accompanying himself with a guitar, his first recordings were built around tales he had heard about work in the mines.

Frank does not claim that songs or tunes *per se* will sell air conditioning equipment. He does believe that appropriate music can lend support to an effective sales campaign.

And we agree.

### What Is An Ama?

Now that Kelvinator has a Foodarama refrigerator, perhaps somebody can tell us what in tunket an "ama" is. Our unabridged dictionary defines it as a "candlenut tree." Yet we have Cinerama films, Motorama (G-M) auto shows, and Colorama television sets.

Perhaps the "ama" craze is akin to this mambo deal. Any day now we are expecting to hear a disc jockey play: "Lead Kindly Light Mambo," and on the flip side, "The Star Spangled Mambo."

### What's Your Motto?

"Inside Dope" was interested to learn that Carrier Corp. puts out a warm-type company publication entitled "Inside Carrier." We quote from a recent issue:

"Bored with the banal pep slogans traditionally used in commerce (i.e., 'The customer is always right,' 'Keep smiling,' 'Do it now'), Toledo Businessmen have organized the 'Let's Have Better Mottoes Association.' There are no dues, no committees, no meetings, but once a month each member gets a copy of the motto of the month. It is selected by the club's frivolous board of directors. The originator of the best motto becomes president of the club for the following month.

"Among the past presidents are: Harley A. Watkins, an engineer, who submitted: 'Think. There must be a harder way to do this job'; Dr. Henry A. Brunsting, physician: 'If at first you don't succeed, forget it'; Edward M. Arnos, president of Securities, Inc.: 'Money is the best labor-saving device'; Martin A. Janis, president of Keuhmann Potato Chip Co.: 'If you feel your oats, switch to hay'; and Russell B. Johns, general contractor: 'Money isn't everything, but it's well ahead of whatever is in second place.'

"Fired with these samples of Buckeye genius, members of the staff of Inside Carrier—word fanciers to a man—have organized an Inside Carrier Chapter. President of the month for January is likeable Joe Valerio whose entry 'How can you expect anything of a day when it begins by getting up' (above) just nosed out the equally

natty: 'Before you get all confused, TKINH.'

Shall we organize an Inside Dope Chapter? Readers are invited to submit suggestions.

### The Pink Shirt Set

From Holiday promotion:

Advertising lingo as it is spoken on New York's Madison Ave.

"Let's get in and pitch, men. (It's 3:30, we'd better get back to the office.)

"Of course, this is right off the top of my head. (I'm afraid to admit it might be a lousy idea.)

"All the job needs now is to cross the t's and dot the i's. (Do it over.)

"It's clever but will it sell? (I get it, you get it, but how about the little old lady in Dubuque?)

"The situation has firmed up a lot, but the client hasn't finalized his thinking. (Stop everything.)

"Better make a mother-in-law

survey. (Call home and see if anyone is watching television.)

"Let's dumb it up. (Do it the client's way.)

"Can you drop down and put out a small brush fire? (Help, help!)

### Production Line Woes

We hope that life for the assistant foremen in our air conditioner plants is not as hectic as it was for Jack Carson on a recent Tuesday evening. Jack played the role of such an employee, called Joey, in a Steel Hour television play entitled "Man In the Corner."

Joey was a likeable but pathetic guy who only wanted "a little respect." But all he was getting at the plant was impertinence or sad stories from subordinates and hell from superiors as foul-ups threatened air conditioner production.

Things were no better at home—his wife's folks' place—where

relatives pestered him endlessly for one thing or another. On top of all this, the "Fat Boy" was racked by hunger pains resulting from dieting undertaken so he could realize the dream of his life—to be a cop.

Everything finally came to a head violently when Joey's bosses hounded him hard about getting a replacement for a defective machine part which had caused a production bottleneck. Joey blew up sky high, told off his martinet boss and anyone else interested, including the "cost-conscious white-shirt boys."

"Sometimes men get tired out just like that machine that broke down, and I'm not going to push the boys anymore," the angry Joey shouted (or words to that effect) as he quit his job and stamped out of the plant.

In the final act Joey reeled into the house carrying something of a load after flunking the police physical exam. But at this unhappy

point the clouds began to break and the sun peeps through. Joey's wife revealed that their own home finally was ready for occupancy, his father-in-law suddenly found Joey worthy of his esteem, Joey's boss at the plant offered him a promotion if he'd come back ("I need a man out there with guts"), and his fellow workers presented him with a watch on which was engraved, "With respect, to Joey."

So, assistant foreman, if the pressure at the factory or at home or both seems unbearable, keep that old chin up. We're sure everything will come out all right in the end. And dealers, if the units you get are late arriving or don't seem to be just right, consider the troubles the poor factory foreman may be having.

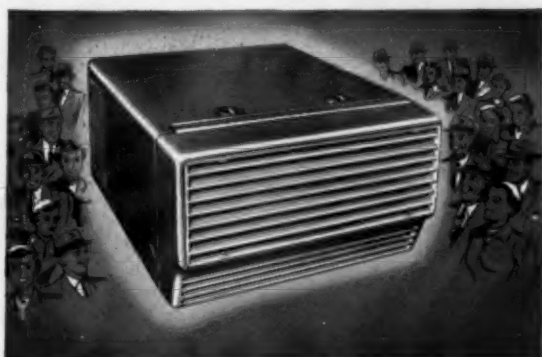
The playwright didn't tell us as much, but we assume that the missing part finally got to the plant, the air conditioner assembly line rolled on once more, and Joey lived happily every after.

# Get into the Profit Parade with Remington's BIG 5 FOR '55!

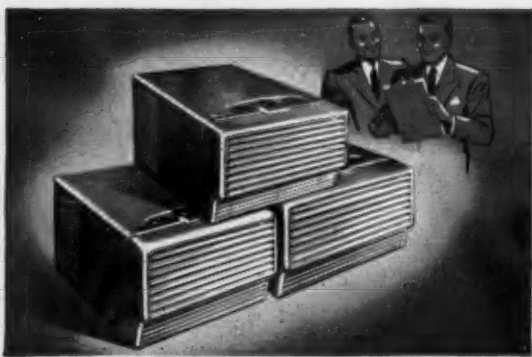


Here's a progressive, sales-loaded program you can't afford to miss! Your "profitunity" in 1955 is just about guaranteed with Remington's hard-fisted selling plans. Sell America's most complete line of Personal Air Con-

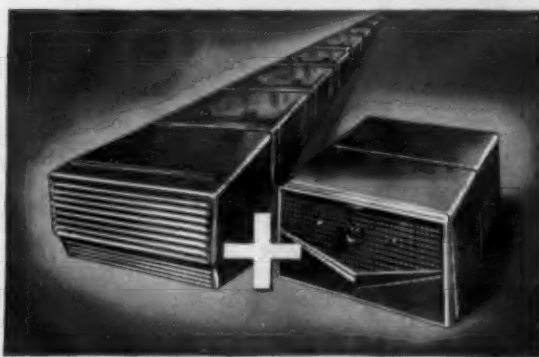
ditioners. Find out how you can get into this profit parade! See your Remington Distributor or send coupon for action. Remember, your sales will come alive with Remington's Big 5 for '55!



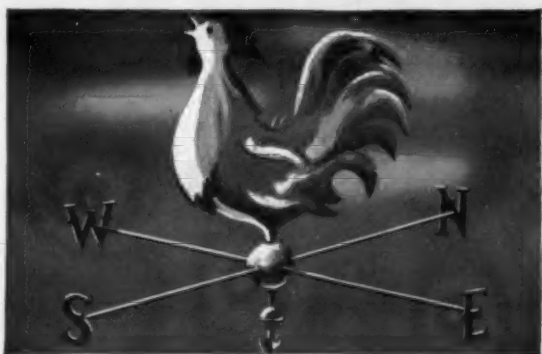
**DEMONSTRATOR ALLOWANCE PLAN!** You get a fat bonus for simply demonstrating Remington units in your store!



**CONTROLLED INVENTORY PROTECTION!** Get rid of inventory jitters with the only *true* inventory plan today!



**1 FOR 9 PLAN!** Purchase 9 Remington units and get one FREE! Use it to boost profits or as a promotion to build traffic and sales!



**WEATHER-VISER FORECASTING!** Only Remington alerts you to the weather conditions you can expect—so be ready to get more sales when hot weather hits!



**COLORAMIC SALES-CENTER!** Rich, colorful, sales-making display that paves the way to more and quicker sales. Works for you every minute, every day!



Division of Remington Corporation  
Auburn, N. Y.  
Founded 1872



**Sell** the Tropic-Tested line—window units, Consoles, consoles—the most saleable line for '55—proved in over 62 countries since 1937

Model 56 1/2 HP  
Model 57 3/4 HP

Model 6 1/2 HP  
Model D6C Deluxe 1/2 HP

Model 8 3/4 HP  
Model D8 Deluxe 3/4 HP  
Model 11 1 HP

Model 12 1 1/2 HP

Console  
3/4 HP and 1 HP

Remington Corporation, Air Conditioning Division  
11-4 Willey Street, Auburn, N. Y.

Rush the facts on Remington's Big 5 for '55, plus particulars on the new Console!

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

Zone \_\_\_\_\_ State \_\_\_\_\_

Copyright 1955 Remington Corporation



## NEMA Home Freezers Sales for 1954 Hit 668,888 Units

Summary for December and Year, 1954

### Electric Farm and Home Freezers—Complete—Sales by Sizes—Units

Farm and home freezers complete with high and low side and cabinet, where 50% or more of the net cabinet capacity is designed for the freezing and/or storage of frozen foods.

#### DECEMBER (22 Companies)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. Less than 5 cu. ft.				
Chest Models	*	*	*	*
Upright Models	†	†	†	†
2. 5 and 6 cu. ft.				
Chest Models	*923	*...	*1	*924
Upright Models	†	†	†	†
3. 7 and 8 cu. ft.				
Chest Models	1,240	66	132	1,438
Upright Models	†	†	†	†
4. 9 and 10 cu. ft.				
Chest Models	†	†	†	†
Upright Models	†1,308	†...	†1	†1,309
5. 11 and 12 cu. ft.				
Chest Models	14,340	112	1541	14,893
Upright Models	5,688	72	65	5,825
6. 12.5 to 17.4 cu. ft.				
Chest Models	10,491	183	247	10,921
Upright Models	5,620	157	219	5,996
7. 17.5 to 21.4 cu. ft.				
Chest Models	3,999	194	18	4,211
Upright Models	3,372	18	15	3,405
8. 21.5 to 30.4 cu. ft.				
Chest Models	825	20	22	867
Upright Models	†954	†3	†	†957
9. 30.5 to 40.4 cu. ft.				
Chest Models	...	...	...	...
Upright Models	...	...	...	...
10. 40.5 to 50.4 cu. ft.				
Chest Models	...	...	...	...
Upright Models	...	...	...	...
11. 50.5 to 60.4 cu. ft.				
Chest Models	...	...	...	...
Upright Models	...	...	...	...
12. 60.5 cu. ft. and over				
Chest Models	...	...	...	...
Upright Models	...	...	...	...
Total Chest Models	21,818	475	961	23,254
Total Upright Models	16,942	250	300	17,492
Total All Models	38,760	725	1,261	40,746

#### YEAR, 1954 (22-24 Companies)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. Less than 5 cu. ft.				
Chest Models	*	*	*	*
Upright Models	†	†	†	†
2. 5 and 6 cu. ft.				
Chest Models	*10,638	*9	*85	*10,732
Upright Models	†	†	†	†
3. 7 and 8 cu. ft.				
Chest Models	27,362	1,213	2,461	31,036
Upright Models	†	†	†	†
4. 9 and 10 cu. ft.				
Chest Models	†13,233	†377	†468	†14,078
Upright Models	...	...	...	...
5. 11 and 12 cu. ft.				
Chest Models	180,273	11,136	13,002	184,411
Upright Models	73,091	739	1,808	75,638
6. 12.5 to 17.4 cu. ft.				
Chest Models	190,076	3,175	1,949	195,200
Upright Models	84,283	1,453	1,240	86,976
7. 17.5 to 21.4 cu. ft.				
Chest Models	90,607	2,423	483	93,513
Upright Models	53,793	289	386	54,468
8. 21.5 to 30.4 cu. ft.				
Chest Models	11,549	198	132	11,879
Upright Models	†10,912	†7	†38	†10,957
9. 30.5 to 40.4 cu. ft.				
Chest Models	...	...	...	...
Upright Models	...	...	...	...
10. 40.5 to 50.4 cu. ft.				
Chest Models	...	...	...	...
Upright Models	...	...	...	...
11. 50.5 to 60.4 cu. ft.				
Chest Models	...	...	...	...
Upright Models	...	...	...	...
12. 60.5 cu. ft. and over				
Chest Models	...	...	...	...
Upright Models	...	...	...	...
Total Chest Models	410,505	8,154	8,112	426,771
Total Upright Models	235,312	2,865	3,940	242,117
Total All Models	645,817	11,019	12,052	668,888

\*Chest models for items 1 & 2 combined because of possible disclosure of individual company data.

†Upright models for items 1-2-3-4 combined because of possible disclosure of individual company data.

‡Chest models for items 4 & 5 combined because of possible disclosure of individual company data.

§Upright models for items 8, 9, 11 & 12 combined because of possible disclosure of individual company data.

Participating companies: Admiral Corp.; Appliance & Electronics Div., Avco Mfg. Corp. (Crosley & Bendix Divs.); Ben-Hur Mfg. Co.; Carrier Corp.; Deepfreeze Appliance Div., Motor Products Corp.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Hotpoint Co., Div. of General Electric Co.; International Harvester Co.; Kelvinator Div., American Motors Corp.; Maytag Co., The; Norge Div., Borg-Warner Corp.; Philco Corp.; Appliance Div.; Quicfrez Inc.; Revco, Inc.; Seeger Refrigerator Co.; Servel, Inc.; Sub Zero Freezer Co., Inc. (in 10-1-54); Victor Products Corp.; Westinghouse Electric Corp.; Wilson Refrigeration, Inc.; A. J. Lindemann & Hoverson Co. (out 2-1-54); Masterfree Home Locker Mfg. Co. (out 8-1-54).



## HOME & FARM FREEZERS



### Home Freezer Sales By Distributors By States

Sales of Electric Farm and Home Freezers  
Complete by Distributors to Dealers—  
By States

Reports were received from 15 companies

STATES	UNITS
Alabama	8,484
Arizona	1,451
Arkansas	6,980
California	12,859
Colorado	6,221
Connecticut	3,866
Delaware	940
District of Columbia	5,536
Florida	10,558
Georgia	12,249
Idaho	2,241
Illinois	20,130
Indiana	15,808
Iowa	12,294
Kansas	7,010
Kentucky	8,994
Louisiana	12,893
Maine	1,740
Maryland	5,154
Massachusetts	4,872
Michigan	14,795
Minnesota	10,915
Mississippi	8,003
Missouri	16,509
Montana	3,645
Nebraska	9,146
Nevada	727
New Hampshire	673

New Jersey	7,237
New Mexico	2,691
New York	21,568
North Carolina	14,908
North Dakota	4,682
Ohio	29,181
Oklahoma	6,448
Oregon	6,325
Pennsylvania	25,023
Rhode Island	636
South Carolina	5,219
South Dakota	5,194
Tennessee	12,243
Texas	27,335
Utah	2,461
Vermont	633
Virginia	8,655
Washington	6,116
West Virginia	6,342
Wisconsin	9,969
Wyoming	1,231
Total United States	428,370

Participating companies: Admiral Corp.; Appliance & Electronics Div., Avco Mfg. Corp. (Bendix & Crosley Divs.); Deepfreeze Appliance Div., Motor Products Corp.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Hotpoint Co., Div. of General Electric Co.; International Harvester Co.; Kelvinator Div., American Motors Corp.; Maytag Co., The; Norge Div., Borg-Warner Corp.; Philco Corp., Appliance Div.; Servel, Inc.; Victor Products Corp.; Westinghouse Electric Corp.

### Admiral Declares Dividend

CHICAGO—The board of directors of Admiral Corp. has declared a regular 25-cent dividend payable March 31.

### Philadelphia Freezer Sales for January Jump 77% over '54

PHILADELPHIA — January sales of home freezers jumped 77% over the same month of 1954, distributors reporting to the Electric Association of Philadelphia indicated recently.

Sales by these distributors of refrigerators and dishwashers jumped 20%, clothes dryers 22%, and ranges 17%. Air conditioner sales, however, dropped 23%.

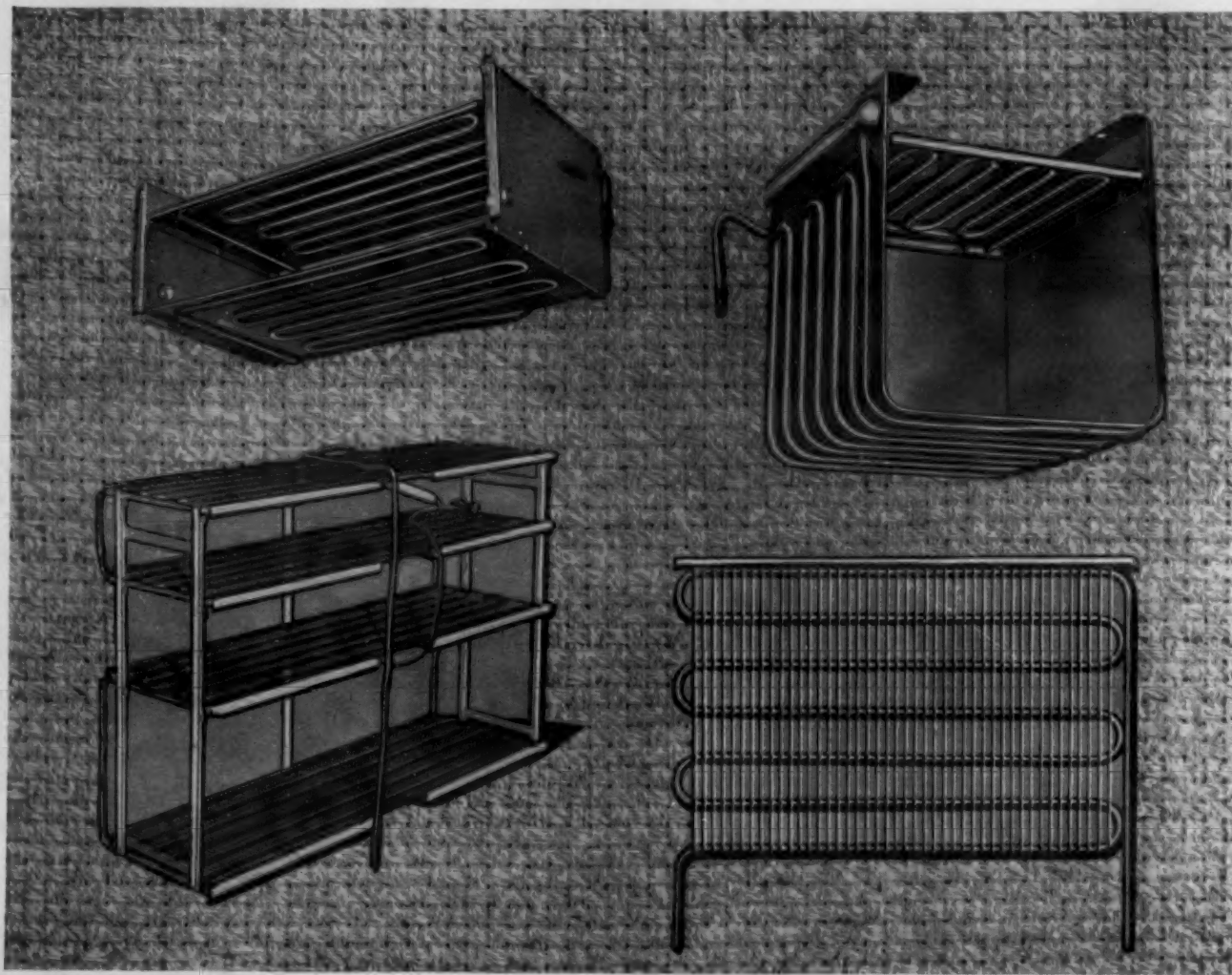
Comparative unit sales for each appliance were as follows:

Appliance	Jan. 1954	Jan. 1955
Refrigerators	5,517	6,657
Home Freezers	544	964
Air Conditioners	1,761	1,362
Clothes Dryers	1,067	1,309
Dishwashers	406	488
Ranges	1,721	2,017

### Joplin, Mo. Firm Will Distribute Amana Line

AMANA, Iowa—A. Y. McDonald Co., Joplin, Mo., has been appointed distributor for Amana Refrigeration, Inc., it was announced by E. L. Hinchliff, sales manager for Amana.

A. Y. McDonald Co. will represent Amana in 36 counties of southwest Missouri, in northwest Arkansas, and in southeast Kansas.



## Any way, shape or form evaporators can be made better with Bundyweld Tubing

### WHY BUNDYWELD IS BETTER TUBING



Bundyweld starts as a single strip of copper-coated steel.



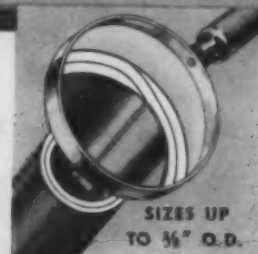
continuously rolled twice around laterally into a tube of uniform thickness,



and passed through a furnace. Copper coating fuses with steel. Result...



Bundyweld, double-walled and brazed through 360° of wall contact.



NOTE the exclusive Bundy-developed beveled edges, which afford a smoother joint, absence of bead and less chance for any leakage.

Bundy Tubing Distributors and Representatives: Cambridge 42, Mass.: Austin-Hastings Co., Inc., 226 Bimby St. • Chattanooga 2, Tenn.: Pearson-Deakin Co., 823-824 Chattanooga Bank Bldg. • Chicago 32, Ill.: Lapham-Hickey Co., 3333 W. 47th Place • Elizabeth, New Jersey: A. B. Murray Co., Inc., Post Office Box 476 • Los Angeles 58, Calif.: Tubasales, 5400 Alcoa Ave. • Philadelphia 3, Penn.: Rutan & Co., 1717 Sansom St. • San Francisco 10, Calif.: Pacific Metals Co., Ltd., 3100 19th St. • Seattle 4, Wash.: Eagle Metals Co., 4755 First Ave., South Forester & Osterie, Canada Alloy Metal Sales, Ltd., 181 Fleet St., E. • Bundyweld nickel and Monel tubing are sold by distributors of nickel and nickel alloys in principal cities.



## HOUSEHOLD REFRIGERATION

### Easter Coloring Contest Increases Traffic At Delgato's

BUFFALO — Delgato's Appliances is stimulating wide interest among boys and girls in the Buffalo area with an Easter coloring contest in which cash prizes are being awarded for the best coloring work.

The contest also has value from a merchandising as well as public relations standpoint because entries must be brought, not mailed, to the store. This means that parents of the boys and girls become floor traffic for the store.

The contest is open to all boys and girls 11 years of age or younger. They may use crayons or water colors. Two pictures will be printed in the Sunday newspaper for five successive Sundays and contestants may submit as many entries as desired.

All prizes will be awarded Palm Sunday, April 3. Winners' pictures will be in the paper on Easter.

Here is the prize schedule: First prize, \$25; second, \$15; third, \$10; two prizes of \$5 each; five prizes of \$3 each; and 25 prizes of \$2.

### Michigan Dealers Plan April 19 Meeting

GRAND RAPIDS, Mich.—A one-day meeting of Michigan appliance dealers is scheduled for April 19 at the Pantlind hotel here, Paul Bond, secretary of the Grand Rapids Appliance & Radio Dealers Association, announced recently.

The program will begin at 2 p.m. and will include a banquet in the evening, Bond said. All appliance dealers in Michigan are invited.

Three speakers have already been scheduled and a fourth is planned, Bond indicated. The three slated to speak are Judson Sayre, president of Norge Div. of Borg-Warner Corp.; Ed Hegarty, director of sales training for Westinghouse Electric Appliance Div.; and Mort Farr, Upper Darby, Pa. appliance dealer.

### Distributor Elects Vice Pres.

DAVENPORT, Iowa — C. J. Herkes, sales manager of Midwest-Timmermann Co., appliance distributor, has been elected vice president in charge of sales, A. S. Motto, president, announced.

## 'Bake 'N Take' Stunt Promotes Norge Ranges

CHICAGO—The mouth-watering aroma of baking gingerbread cookies will add a new touch to appliance stores across the country this year.

So predicted R. C. Connell, Norge vice president of sales, who recently announced the Norge "Bake 'N Take," a plan for women to bake gingerbread cookies in retail stores and take them home for the family.

"The Bake 'N Take is the best way to show women all the economy features of the new 1955 Norge ranges," Connell stated. "Dealers can complete their sales presentations by the time the cookies come out of the oven."

Gingerbread mix, use of a range, and a carry-out bag for the cookies are on the house. Bake 'N Take parties will be held throughout the country at various times, at the option of the individual dealer.

Quaker Oats Co. will supply dealers with "Aunt Jemima" gingerbread mix and gaily decorated carry-home bags. Norge dealers will provide mixing bowls and cookie sheets.

Norge is furnishing dealers with a complete package of merchandising materials to stage the activity. These include gingerbread man-shaped tags for salesmen and a giant Bake 'N Take streamer for the store.



R. C. CONNELL, Norge vice president of sales, delivers to a pretty shopper the first cookie baked in the "Bake 'N Take" activity. The Bake 'N Take activity, announced by Norge, is a plan permitting women to bake cookies in dealers' stores and take them home. Use of the range, the mix, and the carry-out bags are on the house. Quaker Oats Co. supplies the dealers with Aunt Jemima gingerbread mix and the gaily-decorated bags.

## FHA Asks Group To Submit Proposals For Upgrading Wiring Requirements

NEW YORK CITY—An electrical industry body has been named to formulate proposals to the Federal Housing Administration for improved wiring provisions in new housing which qualifies for FHA-insured mortgages, Howard R. Stevenson, assistant manager of operations, Detroit Edison Co., stated here recently.

As chairman of the Industry Committee on Interior Wiring Design, on which he is an Edison Institute representative, Stevenson announced the following appointees to a subcommittee which at FHA's request will submit suggestions for a revision upward of electrical provisions in the "Minimum Property Requirements" of the government agency:

H. H. Watson, General Electric Co., representing the National Electrical Manufacturers Association; A. Carl Bredahl, Westinghouse Electric Corp., representing Illuminating Engineering Society; E. R. Cornish, research director and representative of the National Electrical Contractors Association; John Newton, Sr., president, Oakes Electric Co., Holyoke, Mass., representing the National Association of Electrical Distributors.

John F. Biggi, National Adequate Wiring Bureau, is secretary of the subcommittee.

Present electrical provisions of the Minimum Property Requirements in use by the FHA fall far short of the objectives of "adequacy" and "efficiency" for which the provisions were originally set up, according to Stevenson.

The MPR now in use are below the voluntary standard of a 100-ampere service entrance minimum, as adopted during the past summer by the National Association of Home Builders. NAHB provisions in turn cover only the service entrance portion of the adequacy standards promoted by the National Adequate Wiring Bureau.

These National Adequate Wiring Bureau standards embody minimum circuit and conductor requirements, plus a wiring design layout which furnishes the homeowner with a stipulated number of lighting and convenience outlets and wall switches placed in accordance with the modern concept of convenience.

When the Adequate Wiring service entrance minimum is followed, the home electrical system has a capacity of 100 amperes or 24,000 watts to supply recommended levels of lighting and numerous major appliances. Wiring for future needs is a major consideration of this electrical standard.

## Westinghouse Sales, Income Set Records

PITTSBURGH — Record sales billed by Westinghouse Electric Corp. in 1954 boosted net income to the highest total in the company's history while earnings per share ranked second only to the 1950 record, Westinghouse President Gwilym A. Price reported.

Net income of \$84,594,000 in 1954 was 13.8% higher than in 1953, equal to 5.2% of sales billed and to \$5.06 a common share after payment of dividends on preferred stock. This compared with \$74,322,000 in 1953 which was 4.7% of sales billed or \$4.53 a common share.

For the fifth consecutive year, Westinghouse net sales billed reached a new record high in 1954, totaling \$1,631,045,000. This was a 3% increase over the \$1,582,047,000 billed in 1953, Price said.

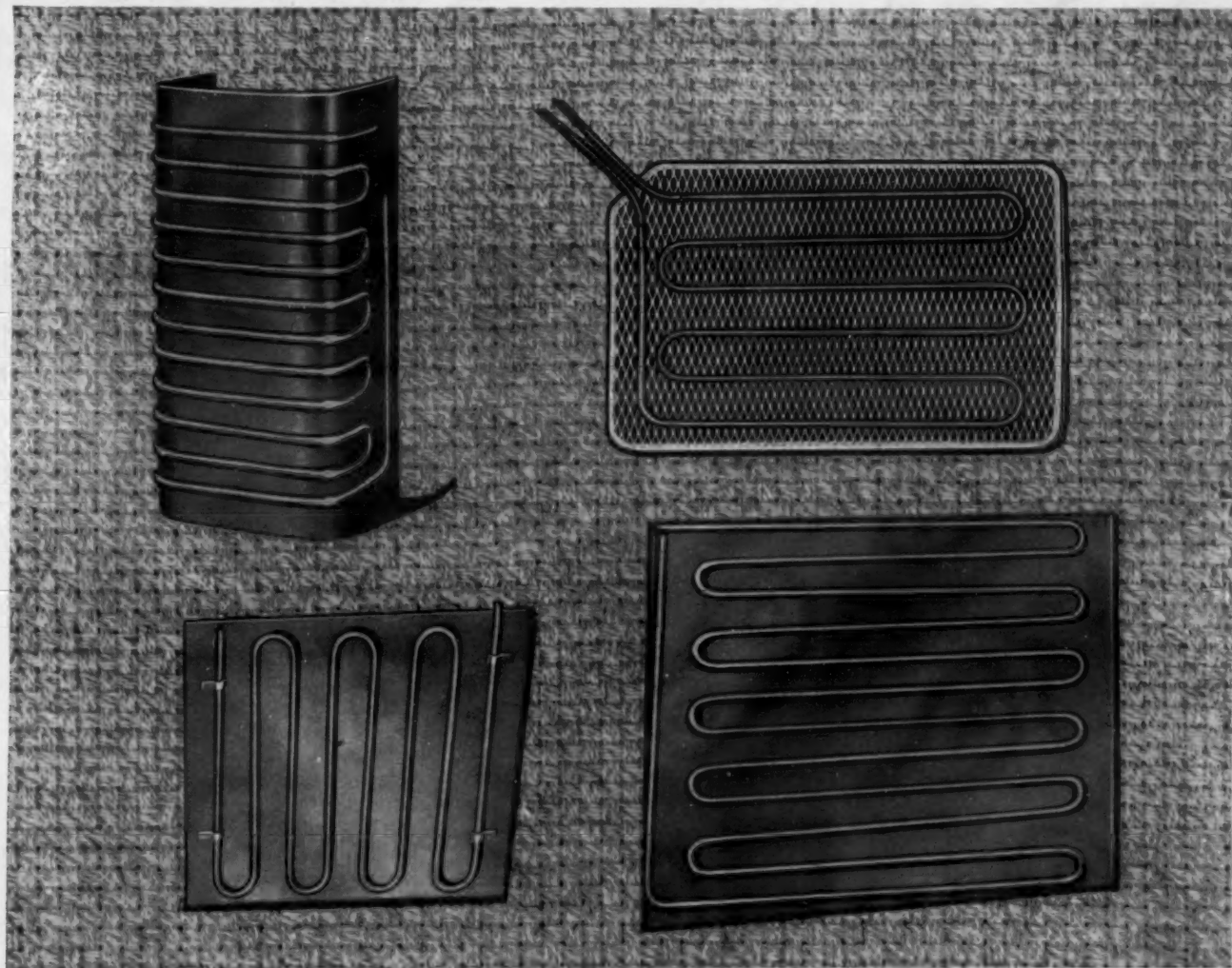
The Westinghouse president took "a generally optimistic view" of the outlook for 1955.

"We anticipate a gain in 1955 of about 10% in new orders over 1954," he said. "This is because of the relatively stable demand for consumer products and for general industrial products, and because we are hopeful that orders for heavy electrical equipment will continue to increase."

## Woman's Home Companion Features Modern Kitchens

NEW YORK CITY — Three kitchen-laundries and one kitchen are pictured in the "Kitchen Picture Book" in the February issue of the Woman's Home Companion to show how kitchens can be remodeled and brought up-to-date with today's appliances.

Bernice Strawn, home equipment editor, demonstrates how packaged kitchens can fit into the dimensions of an actual kitchen.



Whatever the way, shape or form you want your evaporator—tubing on steel sheet, or on expanded metal or on wire—it can be made better if it's made with Bundyweld Tubing.

Positively leakproof by test, Bundyweld is thinner-walled yet stronger—has high thermal conductivity, high bursting strength. And Bundyweld takes easily to any of the standard protective coatings.

Whatever the way you attach tubing—weld, braze, mechanical clinch—Bundyweld sticks to your supporting member solidly, for keeps.

Bundy's long experience with refrigeration assures you the best—and probably least expensive—fabrication you've ever had. Intricate serpentine bends are produced in volume on fixtures of Bundy's own design. If your part can be made faster, more cheaply, with some slight design modification, our engineers will suggest the change. Over the years their ideas have resulted in considerable savings, actual product improvement for many manufacturers.

Why not see just how much better your evaporator can be made? Call or write BUNDY TUBING COMPANY, Detroit 14, Michigan.

# Bundyweld Tubing

DOUBLE-WALLED FROM A SINGLE STRIP





## BOSTON MEAT TERMINAL

*It Takes a Lot Of Refrigeration*



SOME OF THE 917 flash coolers installed in South Bay market terminal, Boston.

BOSTON—It takes a lot of refrigeration equipment to satisfy the needs of the modern food terminal.

For example, an installation at Boston's South Bay market terminal includes more than 900 Peerless of America, Inc. flash coolers with nearly 20 miles of finned tubing.

The multi-million-dollar terminal was dedicated late in 1953. This new district, complete with every modern marketing facility

and located on a gigantic 190-acre, triangular plot, is said to represent "one of the finest developments of its kind in the entire world."

There are no two sites or two buildings in the market area which are alike but they are all integrated into one huge terminal. Situated here are the bulk of Boston's wholesale meat and processing operations.

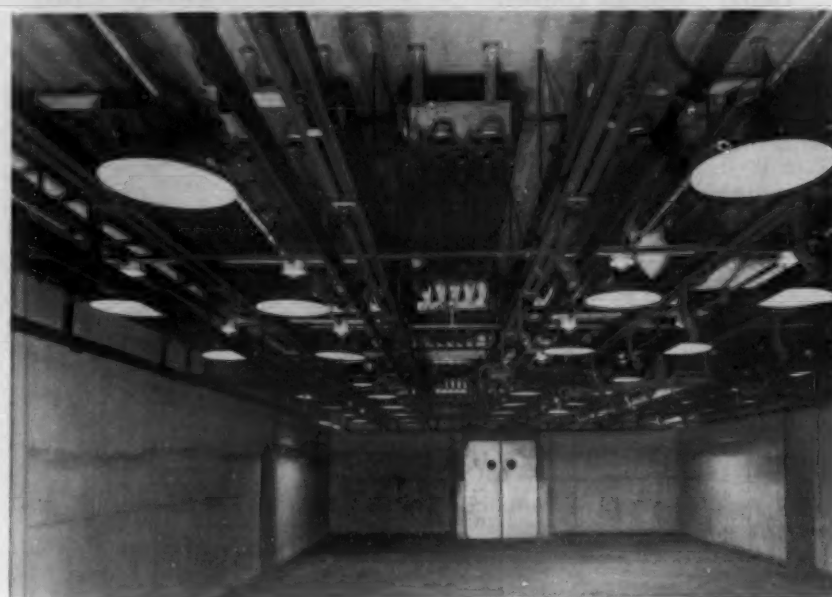
They relocated from antiquated buildings, congested streets, and

inadequate transportation facilities in the ancient Faneuil Hall market district to modern buildings, 80-ft. roads with central parking facilities, and back-door through transportation facilities in the new terminal area.

Two of the buildings were constructed to house the wholesale meat dealers who weren't large enough to erect individual buildings. One is 800 ft. long and has 26 bays; the other has nine.

A total of 327.1 tons of refrig-

## Commercial Refrigeration



BEEF STORAGE ROOMS are held at 34° F., shipping rooms at 50° F.

eration are required to refrigerate the 26 bays of the larger building—Massachusetts Wholesale Food Terminal, Inc. There are 72,000 sq. ft. of area and 864,000 cu. ft. of area. Beef storage rooms are kept at 34° F. and the shipping rooms at 50° F.

Altogether, 917 Peerless flash coolers complete with coils, drain pans, and hangers were installed in this building. The 917 flash coolers contain 323,865 sq. ft. of surface, according to M. W. Knight, vice president and general sales manager of Peerless of America, Inc.

"To fabricate the coils, we required 98,500 lin. ft. of 3/4-in. o.d.

copper tube," Knight pointed out. "If all the finned tube was stretched out end to end, it would extend approximately 19 3/4 miles," it was pointed out.

Design engineer on the job was Thomas Worcester Co. of Boston. Sidney Crooke was the engineer. General contractor was C. J. Maney Co., Boston, and the refrigeration contractor was Bay State York Co.

Harold Widett, a member of the law firm of Widett & Kruger, is president of Massachusetts Wholesale Food Terminal.

He was one of the leaders in development of the South Bay market terminal.

Here is *why* the SPORLAN *Catch-All* is the **PERFECT FILTER-DRIER!**



**Because**  
the famous Catch-All Molded Porous Core catches-all the moisture, corrosive acids, sludge and foreign matter that can possibly harm a refrigeration or air conditioning system.

Being molded of minute particles of a highly efficient desiccant, then double activated and moisture proof sealed after assembly, the Catch-All core dries the refrigerant down to an end point so low that any remaining moisture is absolutely harmless. Harmful corrosive acids are also adsorbed and retained. It cannot powder or pack, and the refrigerant cannot by-pass or

channel around it. Even foreign matter as minute as nine microns is filtered out with negligible pressure drop.

That's why engineers everywhere say...if you want perfectly clean, perfectly dry, acid free refrigeration and air conditioning systems, buy Sporlan Catch-Alls, the perfect Filter-Drier!



Ask your wholesaler for the Sporlan Bulletin 40-10 today! You'll find Catch-Alls available in progressive sizes from 3 to 192 cubic inches in flare or sweat connections.

**SPORLAN VALVE COMPANY**

7525 SUSSEX AVENUE ST. LOUIS 17, MISSOURI

EXPORT DEPARTMENT: 89 BROAD STREET

NEW YORK 4, NEW YORK

### At State College, Pa.

### Latest Heat Transfer Methods Will Be Studied In One-Week Course June 13

UNIVERSITY PARK, Pa. — To help correlate the latest research activities in heat transfer, The Pennsylvania State university will offer a one-week course, June 13-17, on the main campus in State College, Pa.

In announcing the course, the university pointed out that new heat transfer methods "are moving along at such a fast pace that current research findings are out-dating present text books."

The course will cover especially those topics for which conventional, long-established methods do not adequately apply.

Personnel engaged in research, design, and manufacture of heat transfer equipment, along with those in the teaching field, will hear such topics as heat transfer charts of nuclear energy reactors, economical design of heat exchangers, developments and problems in boiling, and heat transfer under modern pressure conditions.

Top industrial and educational people in the field will serve as speakers and resource people at the course, which is being conducted by the university's College

of Engineering & Architecture.

Further details may be obtained by writing to General Extension, The Pennsylvania State University, University Park, Pa.

### Acme Appoints 2 Sales Representatives

JACKSON, Mich. — Strengthening its national sales engineering organization in two key areas, Acme Industries, Inc. has announced the appointment of Dayton F. Hyde as representative for the St. Louis territory and the new firm of Bostock & MacJennett to represent it in San Francisco, northern California, and Reno, Nev.

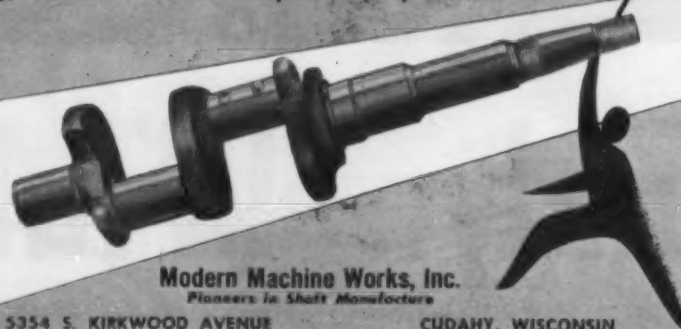
Hyde has been prominent in the heating and air conditioning field in St. Louis for many years.

Both Millard Bostock and Albert MacJennett have been associated until recently with nationally known manufacturers of heating, plumbing, and refrigeration supplies. Bostock is a the mayor of El Cerrito, Calif.

## SHAFTS by MODERN

SINCE 1924...

Shafts by Modern now power compressors for the leading lines of commercial refrigeration and air conditioning units. For precision SHAFTS, in quantity, consult us. Send blueprints for quotation.



Modern Machine Works, Inc.

Pioneers in Shaft Manufacture

5354 S. KIRKWOOD AVENUE

CUDAHY, WISCONSIN



**Drugstore Saves Space****Balcony Installation of Packaged Units Spreads Cool Air over Sales Area**

LINCOLN, Neb.—Wright's Prescription Pharmacy, located in the Sharp building in downtown Lincoln, has solved its air conditioning problem by installing two 3-ton packaged units on the balcony with abbreviated ducts that blow cold air out over the store's selling area.

Proprietor Leslie I. Wright pointed out that the biggest obstacle to be overcome in the air conditioning job was the height of the ceiling. Located on the ground floor of the 17-story office building, the ceiling is approximately twice as high as that in the average pharmacy. Space occupied by the pharmacy was just recently expanded from 18 by 44 ft. to 40 by 45 ft.

The solution came with mounting the air conditioning units on a balcony which also serves for offices and storage. Ductwork on each unit extends only about 4 ft. beyond the balcony but that has been found to be sufficient to create good circulation throughout the store.

Efficiency of the air conditioning operation also has been heightened by using steam coils in each unit for winter heating. One of the air conditioners is a Chrysler Airtemp unit and the other is a Carrier.

**Acme Announces Promotion Plan For Wholesalers**

JACKSON, Mich.—As a kick-off to a new and aggressive merchandising program for 1955, Acme Industries has developed a complete kit of promotional material for use by air conditioning wholesalers.

Title of the double-pocket containing folder is "The Acme Plan to Cash In on the Air Conditioning Boom."

Included in the kit are a complete set of Acme's new catalogs on its "Class J" and "Flow-Cold" products, a six-piece direct mail campaign for direction to contractor-dealers, and material for the dealer's use in promoting consumer interest in the lines.

Wholesalers using the plan will announce it to dealers with broadsides, self-mailers, and giant postal cards.

Dealers will get envelope stuffers and other direct mail pieces, newspaper mats, and a colorful new Acme window decal.

Carl W. Millsom, vice president in charge of field sales and advertising, reports that initial response shows wholesalers receptive to the program and optimistic about the results it will produce.

"Contractors and dealers are becoming increasingly aware of the potential business in cooling towers and packaged liquid chillers, both in the residential and commercial building markets," he said, "and Acme will support their efforts to capitalize on their opportunities in every way possible."

Condensers, heat exchangers, liquid receivers, and storage-type water coolers are other products being promoted by the plan.

**Sidles A. C. Div. Forms Omaha Wholesale Unit**

OMAHA, Neb.—An Omaha wholesale sales division has been formed by the Sidles Co. air conditioning division, with Donald Larsen as representative. He was formerly parts department manager and assistant office manager for the company, which has headquarters here. Sidles features the Chrysler Airtemp line.

**Short Course on Cooling, Heating Problems To Be Offered Apr. 6-8 at Penn State; Beginner, Advanced Sessions Open**

STATE COLLEGE, Pa.—Problems dealing with both heating and cooling systems will be taken up during the third annual forced warm air heating short course at the Pennsylvania State university here April 6-8, according to the preliminary program.

The course is co-sponsored by the university's College of Engineering & Architecture and the National Warm Air Heating & Air Conditioning Association.

Scheduled for the first morning are registration, a welcoming talk by Eric A. Walker, dean of the college; a talk on the purpose and objectives of the course by T. A. Wright, Engineering Extension; and a review of classroom problems by Clarence Grandstaff, C. A. Olsen Co.

A lecture explanation—"Refrigeration Cycle" by Clotworthy Birnie, Jr., assistant professor of mechanical engineering—and classroom problem work are planned for the afternoon. In the evening there will be an informal session

with Lorin Miller, dean emeritus, School of Engineering, Michigan State college.

Another lecture explanation—"Heat Gain Calculations"—will be given by K. R. Davenport, assistant professor of mechanical engineering, Thursday morning, April 7. The lecture explanation in the afternoon will be "Air Quantities and Duct Sizes for Warm and Cool Air," by Charles ToeLear, General Electric Co. There will be classroom problem work after each lecture.

A banquet will be held Thursday evening with Ned Cole, president of the National Association of Home Builders, as speaker.

P. B. Lovett, assistant professor of mechanical engineering, will handle the lecture explanation Friday morning on "Continuous Air Circulation." After classroom problem work in the morning and afternoon, Paul Agey, American Radiator & Standard Sanitary Corp., will talk on "Selling Comfort, Not Heating." This will be followed by

presentation of certificates.

Regarding design problems, it was announced that Problem 1 has been set up as follows: Class A—for the beginner in the field of warm air heating; basic instruction in figuring heat loss will be emphasized. Class B—will offer a review of heat loss calculations and additional work on the sizing and layout of a residential heating system.

Problem 2 is for the man who has been installing heating or cooling systems for some time and who would like to find answers to specific problems which he is likely to meet in installing heating and cooling in a large residence. This problem is recommended especially for the man who wants to install a combined residential heating and cooling system.

Problem 3 is another advance problem dealing with both heating and cooling systems. The building is a doctor's clinic to be heated, cooled, and ventilated.

The course is open to anyone

engaged in warm air heating contracting, installation, sales, or design, and to persons planning to enter the field. Registration is limited to 200.

The course fee, including text materials, slide rule, and necessary manuals, is \$25. The banquet is \$3.

Double rooms will be available in the university residence halls at \$2 per person per night. Hotel and motel accommodations also are available.

**Begin Construction of Air Conditioned Medical Bldg. To Serve Charlotte, N. C. Area**

CHARLOTTE, N. C.—Representing an investment of more than \$225,000, construction on a new air conditioned office building for doctors is under way at 1344 Romany Rd. here.

The three-story structure, to be known as the Myers Park Medical building, will have 13,000 sq. ft. of floor area and will have space for three stores as well as eight to 10 suites for doctors, according to the announcement.



It's great to be a  
**Carrier Weathermaker\* Dealer!**



Because Carrier Distributors  
are extra helpful!

This may be straining a point to show it's no strain on a Carrier Distributor. But when it comes to supplying Weathermakers there's nothing like the help that Carrier Dealers get from their distributors—all 108 of them. Carrier Distributors stock the entire line of Weathermakers and they can deliver quickly the special models which might require months to get from the factory. And they offer several easy ways to finance the cost.

**Carrier Distributors know air conditioning!**

Most of them started as dealers themselves. They know what it takes to be a successful air conditioning dealer—and they have it to give. They'll help you survey your market, train your salesmen and service people, work with you on estimates, engineering, application and service, help you with your advertising and promotional plans. And in addition to all this, you have this big plus...

**You have the Carrier name to sell!**

It's the name associated with air conditioning—not automobiles, not light bulbs, not kitchen appliances. Carrier people pioneered air conditioning and know it best. Your prospects know this—Carrier products show it! Take the Weathermakers!—the most complete line of self-contained units in the business. And now Carrier offers you air-cooled Weathermakers—the first heavy-duty, commercial units up to 7½ hp! These Weathermakers alone are reason enough for tying up with Carrier. But there's more...

**Look what you get from the Carrier Distributor!**

1. Complete Course in "How to Sell the Weathermaker"—covering estimating, design, application, installation, sales, the works!
2. Industry's Most Complete Line of Self-contained Equipment—air-cooled Weathermakers from 2 to 7½ hp. Water-cooled models from 2 to 20 tons! Plus a full line of matched cooling towers.
3. A Weathermaker Handbook to Sure-fire Sales—everything in one handy pocket volume: survey procedure, estimating data, mechanical specifications, sales tips.
4. Low-cost Finance Plans—five dealer and customer finance plans plus convenient plans that let you order from the distributor's stock without big investments.
5. On-the-spot Assistance in Engineering, Sales and Advertising!

\*Reg. U.S. Pat. Off.

**CARRIER**  
AIR CONDITIONING  
REFRIGERATION  
INDUSTRIAL HEATING  
CARRIER CORPORATION, 310 S. Geddes Street, Syracuse, New York

Please put me in touch with the Carrier Distributor who can enroll me in that "How to Sell the Weathermaker" course.

I'd be interested in selling:

☐ Carrier Self-contained Weathermakers

☐ Carrier Residential Weathermakers

☐ Carrier System Weathermakers

☐ Carrier Room Air Conditioners

☐ Carrier Ice-makers

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Street \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_





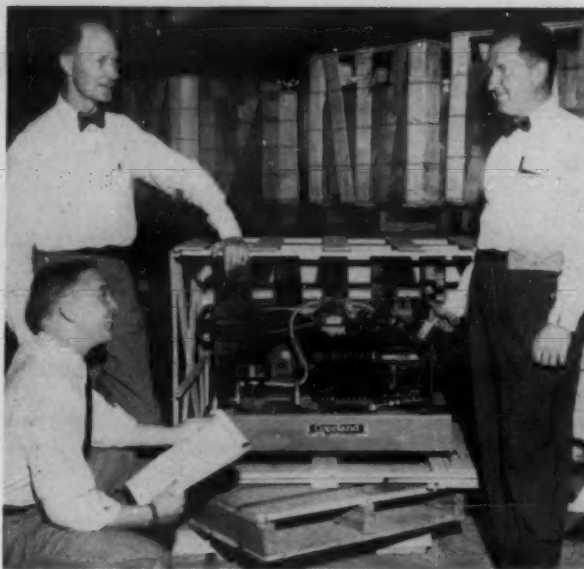
# SERVICE Is Key to Wholesaler's Business SUCCESS



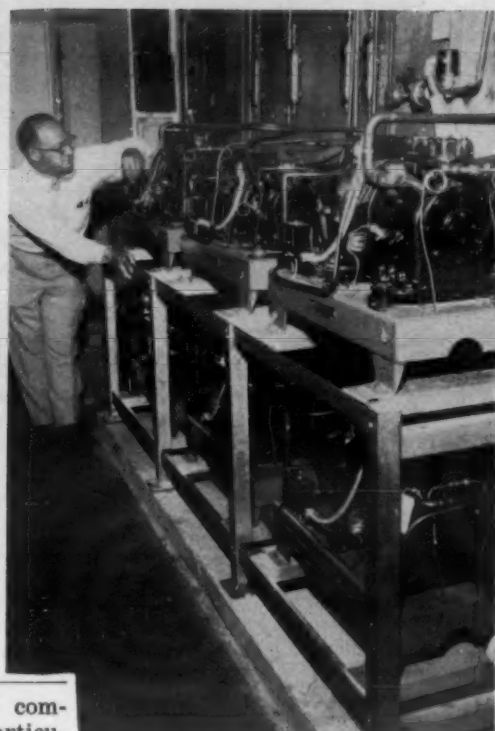
DEL SMITH of refrigeration sales department, Williams & Co., Columbus branch, chalks up schedule for field salesmen on "call board." This is system devised to make sure salesmen make regular calls.



WILLIAMS & CO. has built reputation for fast service. When emergency refrigeration parts are needed in a hurry Ken Coffin, manager refrigeration sales for the Columbus branch, flies equipment to the customer in this small plane which the firm rents.



WILLIAMS & CO. officials uncrate Copeland 3-hp. water-cooled condensing unit in firm's huge warehouse. Left to right: Del Smith (squatting) of refrigeration division; Jim Gaupp, manager Columbus branch; and Ken Coffin, manager refrigeration sales.



YET ANOTHER application for Copeland motor compressors is this row of units serving food boxes in large Columbus department store. Man inspecting the equipment is store's chief engineer, Jack Rings. Columbus refrigeration contractor for this application was John Herrell & Sons.

COLUMBUS, Ohio—What is the key to building business for a refrigeration and air conditioning equipment and supplies wholesaler and for creating satisfied customers?

"Service" declares James L. Gaupp, district manager for the Columbus branch of Williams & Co. The firm has home offices in Pittsburgh and, through branches in Cleveland, Cincinnati, Columbus, Toledo, and Louisville, covers the

industrial areas of western Pennsylvania, Ohio, West Virginia, Kentucky, and parts of Indiana, Michigan, and Maryland.

Williams & Co. is sometimes known as the "House of Metals," as it handles products of such firms as International Nickel Co., Revere Copper & Brass, National Tube Co., Republic Steel Corp., United States Steel Corp., and Aluminum Co. of America.

In the refrigeration field it is

one of the top distributors for Copeland Refrigeration Corp., and is among the top dollar volume producers among members of the Air Conditioning & Refrigeration Wholesalers association.

"Each of our divisions is specialized," states District Manager Gaupp, "and our refrigeration department is one of the fastest growing."

Gaupp outlined how the company, and his branch in particular, carries out its "service" sales policy.

First of all, he said, Williams selects reliable manufacturers to represent. Then, it keeps adequate stocks. The Columbus warehouse, for instance, has more than 20,000 sq. ft. of floor space and none of it goes to waste.

## OVER 70 SALESMEN

"Our 70 inside and outside salesmen cover approximately a 75-mile radius for each branch," stated Kenneth L. Coffin, refrigeration supervisor of the Columbus branch.

These salesmen make regular calls on their customers. A card is sent to the customer one week in advance of the salesman's call. Attached to the card is a detachable self-mailer which the customer fills out and returns to Williams if he wants the salesman to deliver something.

One unique device at Williams' Columbus office is a blackboard, similar to a theater call board, on which the salesmen chalk their assignments.

## ORDERS USUALLY FILLED ON THE DAY RECEIVED

"When an order comes in, it usually is filled the same day," Coffin said.

If an order comes in and the item is out of stock, the nearest branch is contacted and rapid delivery is ensured. All Williams branches are in direct communication by telephone and private teletype trunk line.

"On many occasions," Coffin continued, "we've called Copeland's service department to help us fill an emergency request. They've been most cooperative. They put equipment on the bus from Sidney, Ohio, to Columbus (75 miles) and we get it the same day."

## EMERGENCY ORDERS FLOWN TO CUSTOMER

During emergencies, such as a breakdown of a frozen food locker, where loss of time means loss of dollars in spoilage, Williams & Co. will fly the needed equipment to the customer. Coffin, himself a pilot, rents a plane and flies the needed equipment to its destination. He said he flies about six of these missions per year.

A fleet of motor trucks assures (Continued on next page)

## PLAN FOR PLUS-PERFORMANCE

plus  
Continued  
Cost Savings

WITH

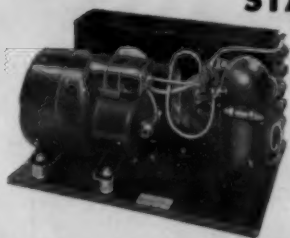
Servel

SUPERMETIC

STANDARD AND CAPILLARY TUBE

CONDENSING UNITS

Qualitywise . . .  
your widest and  
wisest choice for  
every application



**SUPERMETIC MODEL SM-75**  
¾ H.P. Standard Electric Condensing Unit — also offered in ¼ through 1 H.P. sizes, air-cooled and water-cooled models.



**SUPERMETIC MODEL CM-32**  
½ H.P. Electric Capillary Tube Condensing Unit — also available in popular ¼ and ¾ H.P. sizes.



**SUPERMETIC ELECTRIC POWER UNITS**  
¼ THROUGH 7½ H.P. SIZES

for low, medium, and high temperature applications — for capillary tube and expansion valve systems, and for F-12 and F-22 applications. Compact, quiet, high-capacity units to match your every need.

**EXTRA COMPACT** — Advanced, low-height, hermetic design saves valuable space.

**EXTRA POWER** — Low current inrush, high-power factor motors — refrigerant and oil-spray cooled.

**EXTRA PROTECTION** — Power units fully enclosed against moisture, dust and loss of refrigerant.

**EXTRA QUIET** — Special mountings cushion against vibration and noise — assure continuing smooth operation.

**BUILT-IN LUBRICATION SYSTEM** — Forced feed — no manual oiling. Oil-free refrigerant — no oil slugging.

**PLUS** Factory-Backed Warranty and quick availability of units and installation supplies from more than 100 conveniently located Servel Authorized Wholesalers.

Write, Wire . . . or Phone Today:

**SERVEL, INC.**, Commercial Refrigeration Division  
Evansville 20, Indiana

Servel

THE NAME TO WATCH FOR GREAT ADVANCES  
IN REFRIGERATION AND AIR CONDITIONING

## SUPER-FLO FILTER-DRIER

UP TO  
5 TONS



NO  
PRESSURE DROP

## MOLDED REMCAL DRYING FIBERGLAS DEPTH FILTERING

Check Super-Flo's amazing low price, for both original equipment and replacement, against ordinary driers which do not have Super-Flo molded drying elements, massive fiberglass depth filters and spun-end copper shells. Available to the trade through wholesalers everywhere.

**REMCO** INCORPORATED  
ZELIENOPLE, PA.

## WHY WAIT?

Get your new product info pronto. Use coupon on "What's New" page this issue.

## MARSH Instruments

THE SERVICEMAN LINE of Testing Gauges, Testing Thermometers, Timers, etc.

**PRESSURE GAUGES** and Dial Thermometers for all services.

**MARSH-ELECTRIMATIC**, Water Regulating Valves, Solenoid Valves.

**MARSH INSTRUMENT COMPANY**  
Sales Affiliate of J. P. Marsh Corporation  
Dept. D., Skokie, Ill.

## MOTOR BASE ADAPTERS Sell Many Other Items

Keep them in stock. Servicemen will pick up adapters and motors, carry them in their cars, and complete service on the job in one call. Eliminates delay of having motors away for rebuilding. Adapters are easy to install, fit any base. No rotor shaft too long or too short. They also bring you more sales in motors, belts, pulleys, controls, etc.

**SIZES FOR ¼ to 3 H.P. Inclusive**  
**Engineering Research Associates, Inc.**  
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Hazel Park, Michigan

## Harry Alter's New DEPENDABOOK

GET IT AND SAVE!

No. 162

1955

OVER 10,000 ITEMS  
ILLUSTRATED, DESCRIBED AND PRICED

Save Money On

**REFRIGERATION PARTS and Supplies**

...Also Electric Motors & Parts, Air Conditioning

PRICED RIGHT!

"Harry Alter gives you snappy service"

**The HARRY ALTER CO. Inc.**

1228 S. Michigan Ave., Chicago 16, Illinois  
134 Lafayette Street New York 13, N. Y.  
122 Parkhouse Street Dallas 7, Texas



(Continued from preceding page)

normally rapid service with branch areas. All offices and warehouse sections of the branch are connected by a telephone network.

Walk-in customers get over-the-counter service at a well-stocked refrigeration store on Williams' premises.

Engineering counsel and mill services are available to customers, at no extra cost.

Gaupp listed the following things Williams & Co. strives to do for the manufacturers it represents:

1. Maintain adequate stocks in market centers.
2. Provide a competent sales force.
3. Perform a credit and collection function.
4. Develop the market intensively.
5. Promote new products.
6. Store goods for the manufacturer.

He enumerated the following things the firm strives to do for its customers:

1. Act as purchasing agent.
2. Buy in quantity.
3. Maintain stocks at convenient points.
4. Make prompt deliveries.
5. Maintain an adequate service department.
6. Provide maintenance products.
7. Aid in specialty selling.
8. Extend credit.
9. Supply market information and engineering data.

In addition to its aggressive personalized sales and service program, Williams & Co. invests in various media of advertising.

The Columbus branch, for instance, places ads in local newspapers, sends out a considerable volume of direct mail, and buys local TV spots as tie-ins to nationally-televized products.

Public relations activities include an occasional "open house," participation in local industrial and community affairs, engineering societies (RSES, AWS, ASM, etc.), friendly employee relations, and customer information service.

In short, Williams & Co. operates on the premise that a satisfied customer is a return customer.

## 6 Service Calls Win Free Gift For Customers of Denver Firm

DENVER—Offering the homeowner a free prize for every six repair calls made has skyrocketed service volume at University TV and Appliance Center here, according to owners Manny and Bill Greenberg.

When the customer calls in for the first appliance repair, the serviceman responding gives her a wallet card, which provides space for punching out six numbers. The appliance owner is told that when the card is punched out, she may select a free gift from the list printed on the center of the card.

Included are a case of quick frozen orange juice, a snow sled for the children, a deluxe heating pad, a kitchen or desk clock, a travel iron, a camp lantern, and other "worthwhile" prizes, Bill Greenberg pointed out.

The cards are transferable, and the housewife can earn additional punches by encouraging her friends to call on University TV and Appliance Center for service. In two years time, hundreds of the cards have been redeemed.

To pay for the prize, the Greenberg brother budget \$1 for every service call, so that six service calls actually represent \$6, roughly equivalent to the distributor price for most of the gift items listed on the card.

In order to get as many people acquainted with the plan as possible, the Greenbergs visited a dozen supermarkets in its area. At each store, the manager was offered \$5 in cash, or service credit on his own appliances, in return for distributing the cards in grocery purchases at the checkout stands.

The brothers got an excellent reaction to this suggestion, and something like 5,000 cards were put in the hands of potential service customers in a week's time.

Since then, there has been a steady flow of "repeat customers" who depend upon the University firm for maintaining all the appli-

ances which they use in the home.

The south Denver store likewise offers "drive-in service" for the customers who want to save by bringing their appliance to the service department themselves. These calls, too, are accredited to the free gift system.

How effectively has this service volume stimulator worked out? For 1954, service volume increased by \$25,000.

## Midwest RSES Conference Set for Sept. 29-Oct. 1

JOPLIN, Mo.—This year's annual educational conference of the Mid-West Association of RSES will be held at the Conner hotel here Sept. 29 to Oct. 1, announces John W. McCullough, Joplin Supply Co.

Based on previous conferences, more than 300 are expected to attend this year's event.

Committee appointments for the conference include: William M. Most, publicity; Ralph Kitchen, educational; Jim Morgan and John Fenton, housing and registration; George Haynes and Leffin Pflug, program and printing; O. P. Marshall and Teddy Barnes, entertainment; Austin Longstreet and Frank Harper, advertising; Bill Pickett and John Wolf, finance.



## Service & Supplies

### Honeywell Names 3 To Midwest Posts

MINNEAPOLIS — Three field personnel changes in Minneapolis-Honeywell Regulator Co.'s midwestern region have been announced by Gavin S. Younkin, general sales manager.

Arnold Challman, for the past four years manager of the company's branch office in Peoria, has been named to the newly-created position of administrative assistant to Manager T. S. Carley in the company's regional sales and service office in Chicago.

R. C. Ferguson, formerly manager of Honeywell's district sales office in Davenport, will manage the Peoria branch office while R. R. Scott, former regional sales manager for the company's valve division in Chicago, is the new manager of the firm's Davenport office.

Honeywell's midwestern region covers Illinois and Indiana and parts of Michigan, Wisconsin, Iowa, Missouri, Kentucky, Tennessee, Arkansas, and Mississippi. It includes 15 branch and regional offices.

### Brunner Valve Has Interchangeable Parts

UTICA, N. Y.—A new group of improved valve plates for refrigeration compressors that feature interchangeable parts has been brought out by the Brunner Mfg. Co. here.

The interchangeability feature means that parts suppliers and wholesalers can now standardize on one-third the number of spare parts formerly required for stocking, according to the company.

Although three sizes of plates are required to serve all Brunner compressors from 3/4 to 30 hp., replaceable parts for all three sizes are identical.

A new non-clogging feature which permits the valves to swallow liquid slugs is also incorporated in their design.

### To Air Condition New Montreal Office Building

MONTREAL, Que., Can.—Air conditioning will be a feature of the new Dorchester Tower office building to be erected here. The building will have year-round air conditioning.

## Packaged or in Bulk WITH ESTON YOU GET THE COMPLETE REFRIGERANT LINE

Eliminate the costly and inconvenient charging rack with Charg-A-Can packaged refrigerants. These new labor and time-saving disposable containers require no deposit, assure no waste, control purity and permit accurate charging. Convenient Charg-A-Cans also eliminate the necessity of heavy storage and transportation equipment.

All Eston refrigerants are filled under carefully controlled factory conditions, with material expertly analyzed for purity and moisture content.



DISPENSER VALVE—Pictured (above) is the new improved dispenser valve for use with ALL Charg-A-Cans.



"Freon-12" 95/100 lb.  
"Freon-22" . . . 2 lb.  
"Freon-114" . . . 1 lb.  
Sulfur Dioxide . . 1 lb.  
Methyl Chloride . 2 lb.

\*Trade Mark of E. I. DuPont de Nemours & Co., Inc.

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## No. 1 industry favorite

## PARAGON 300-MB time switch is right for 90% of all refrigeration defrosting jobs

No. 1 favorite? You bet! From the day the Paragon 300-MB switch was introduced, it has been the standard of the refrigeration industry — and its uses are growing daily. It's standard for hot gas or electric heat defrosting . . . it automatically controls fans, solenoid valves, compressor motors and other equipment. Install it, set it, then forget it.

Insist on famous Paragon top-quality construction necessary for heavy-duty service — vital to ending call-backs — a must for guaranteeing profits. Order from your Refrigeration Equipment Wholesaler or write Dept. 1687 for bulletin.

✓ PROVIDES DEFROST CYCLES from 15 to 120 minutes — 1 to 8 operations per day.

✓ LONGER SWITCH LIFE assured by heavy-duty, industrial type motor.

✓ SHOCK-PROOF TERMINAL BLOCK means faster, safer installation.

✓ AMPLE CAPACITY — 30 amps, 120/240 volts, single or double pole. Offers flexibility not found in any other control.

Also write for complete facts on these famous Paragon timers

Commercial Defroster

Dehumidifier Timer

7-Day Calendar Dial Time Switch

Fan Timers

Freezer Timers

Refrigerator Timers

Water Pump Timers

Window Blinds Timers

Yard Lights Timers

PARAGON ELECTRIC COMPANY TWO RIVERS, WISCONSIN WORLD'S FOREMOST MANUFACTURER OF TIME CONTROLS





FEDDERS room air conditioner demonstration center displays two models in 13½ sq. ft. The two wings of the display are at slight angles from each other and each contains a mounted air conditioner with photographs depicting various units in action.

## Fedders Room Unit Demonstration Piece Displays 2 'Window' Mounted Coolers

BUFFALO — Fedders-Quigan Corp. has developed a new display piece for dealers—the demonstration center—which shows two types of Fedders room air conditioning units in one 13½ sq. ft. display.

Designed by Arthur Grossman of Chicago, a merchandising consultant retained by Fedders, the demonstration center was specifically planned to give the Fedders

dealer an organized spot from which to sell room air conditioners.

Two wings, at slight angles to each other, contain a custom ("Fleximount") model and a conventional model, respectively, fully mounted in "windows." The rest of the space, constructed of masonite and plywood, is occupied with photos of various units in action and information to help the consumer choose the proper unit.

## Sutton Promotes Mull To Vice Presidency

WICHITA, Kan.—Dan Mull, who has been chief engineer for the O. A. Sutton Corp., manufacturer of "Vornado" air conditioners and air circulators, has been advanced to vice president for engineering. Mull joined the Sutton organization in 1950 as assistant chief engineer.

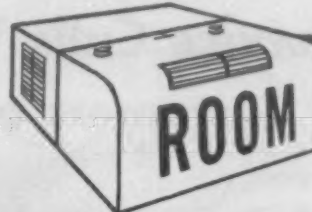
Mull is a graduate of the University of Michigan and received his B.S.E. Mechanical Engineering in 1932. He received his M.S. in 1933. He is a member of the American Society of Refrigerating Engineers, Kansas Engineering Society, Engineering Society of Detroit, American Ordinance Association, and past chairman of the Detroit section ASRE.

## Dryomatic Reports Backlog Despite Production Boost

ALEXANDRIA, Va.—Rapid expansion in production and sales is forecast for 1955 by Dryomatic Corp. here, maker of industrial dehumidification equipment.

The company said its production has already jumped six-fold over 1954 and orders are backloging despite a new 8-hour shift.

Walter Bolton, president, views the growth picture "in terms of increased realization of dehumidification's role in industry."



## AIR CONDITIONERS

## Perfection Kit Permits Installation In 33½-In. Window, Removal for Washing

CLEVELAND—An adapter kit that permits installation of Perfection air conditioners in windows only 33½ in. wide and also provides for sliding the unit away from the window so the window can be washed on both sides has been announced by Perfection Stove Co.

Kit AA-11 provides supporting tracks for the window unit so that it can be mounted entirely within the window line.

To move the entire housed unit away from the window, the sash is raised, a single wing nut is loosened, the bolt is dropped, and the entire unit is pulled forward. The unit rides forward on a pair of wheels at the back and an extra set of legs and casters at the front. Safety stops are provided at both ends of the tracks.

The Perfection line is offered in four sizes—½, ¾, 1, and 1½ hp.—

all mounted in the same size cabinet. All units include heating elements.



PERFECTION adapter kit allows window air conditioner to be mounted in window as narrow as 33½ in. wide. It also makes it possible to move the unit for ease in washing the window inside and out.

## RCA Room Cooler Campaign To Feature Testimonials from World's Hot Spots

CAMDEN, N. J.—Results of exhaustive on-the-spot tests in the world's toughest hot weather spots will be used by RCA to keynote one of the most extensive and unusual advertising and sales promotion campaigns ever planned for RCA room air conditioners.

This was announced recently by Austin Rising, general manager, Room Air Conditioning Dept., Radio Corp. of America.

"A researcher-photographer team flew more than 24,000 miles around the globe to get facts and pictures of RCA air conditioner units in action in some of the hottest, steamiest countries on earth," Rising said.

"The data and photos they brought back made one of the greatest merchandising stories in the history of air conditioning."

Utilizing a strong, all-media approach, the campaign will be directed toward both consumers and authorized dealers across the nation who handle RCA room air conditioners.

Four-color full-page ads in such publications as *Life*, *Better Homes & Gardens*, and *Time* will carry

the campaign to consumers.

Rising said the advertising and promotional campaign was designed to bolster the competitive position of the line.

"In Morocco, Bagdad, Karachi, Kuwait, Ceylon, Singapore, and other of the world's toughest weather spots, RCA air conditioners are demonstrating efficiency and durability, providing cool comfort under blistering temperature and humidity conditions," he stated. "Our entire campaign is keyed to the results of these proved, on-the-spot installations."

The campaign, which will bear the tag-line "Proved in the World's Toughest Weather Spots," was developed under direction of Paul W. Grover, advertising manager of the air conditioning department. Agency for the account is Al Paul Lefton.

Grover said that in addition to the advertising support—which includes co-op local newspaper, radio and television advertising, and commercial on RCA-sponsored network radio and television shows—extensive promotion material also will be available.

## 5 Admiral Window Air Conditioner Models Equipped with Built-In Dehumidifiers

CHICAGO—A built-in dehumidifier that removes up to 84 pints of water a day from moisture-laden air is a feature of the five basic models in the 1955 line of Admiral room air conditioners, the company announced recently.

Highlighting the five models is a ½-ton unit priced at \$199.95, \$80 less than last year's ½-ton model.

William Doyle, sales manager of Admiral Corp.'s air conditioner division, said that the new models are of "hideaway" design extending only 3 in. into the room and permitting draperies to be drawn over them. They can be installed in minutes in conventional as well as casement windows, or through the wall, he added.

Another feature of the line is the use of clear-view polystyrene side panels on both sides of the unit to admit additional light when installed.

The deluxe models (75D5 and 100D7A) have a simplified, two-speed weather control panel with 12 different dial settings to pro-

vide 12 different kinds of weather.

Other deluxe features are a permanent cleanable filter, which removes dust, dirt, soot, and pollen before circulating the air, and the comfortrol thermostat located behind the directional air grille assembly.

The three standard models (50D5S, 75D5SA, and 100D7S) contain double-duty disposable filters with extra-large filtering surface. No special tools or cabinet dismantling is required for removal of filters.

Directional air flow louvers may be adjusted to direct the flow of filtered conditioned air wherever desired. When outside air is wanted the unit provides fresh filtered air and circulates it without drafts.

Suggested list prices for the five models are:

Model	Hp.	Price
50D5S	½	\$199.95
75D5S	¾	299.95
75D5	¾	379.95
100D7S	1	369.95
100D7	1	449.95

# Whatever your requirements



## provides a complete line of dependable SOLENOID VALVES

Jacks-Evans Solenoid Valves are available in the following capacities—to meet your application problems with the most dependable type of control available today!

Freon—Up to 113 Tons

Brine—Up to 1½" Line Size

Ammonia—Up to 330 Tons

Water, Air and Gas—Up to 1½" Line Size

Every J-E Solenoid Valve is Guaranteed for 18 months. All provide the following outstanding advantages:

**Tight Seating**—no bubble tolerance.

**Simplicity**—only two moving parts.

**Long Life**—unusually cool coils.

**Durability**—all corrosion resistant materials.

**Opening Pressure Differential**—higher than most others on the market.

Complete interchangeability of the coil assembly is another exclusive feature of J-E Solenoid Valves. Regardless of valve size, you need only one coil assembly.

These and many other reasons have made J-E Solenoid Valves first choice of the country's leading manufacturers of refrigeration and air conditioning equipment.



## PORT SIZES

¼", ⅜", ½", ¾", 1", 1½" and 1½".

Arranged for FPT, ODS and SAE connections.

Available in all standard voltages, or special voltages as required.

Call your wholesaler or write direct today for complete information.

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SOLENOID VALVES THAT SURPASS THEIR SPECIFICATIONS  
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Controls Division: 4427 Geraldine Avenue, St. Louis 15, Mo.





## Quality Control of Candy Aided by 750-Hp. Air Conditioning System In 8-Story Kitchen

LONG ISLAND CITY, N. Y.—A "deluxe" air conditioning system is one of the major factors in controlling the quality of candy produced for Loft's Candy Shops at the company's eight-story kitchen in Long Island City.

The system is large and flexible. A total of 750 hp. is required to drive refrigeration compressors and system components are situated in several locations throughout the plant to better meet variable load conditions.

### Reheat Principle Used

The "deluxe" feature lies in the fact that the reheat principle is employed in maintaining close control of humidity within processing rooms. This system requires greater refrigeration capacity than most air conditioning systems since recirculated air is chilled and then reheated, not merely cooled a few degrees to remove heat picked up within the conditioned space.

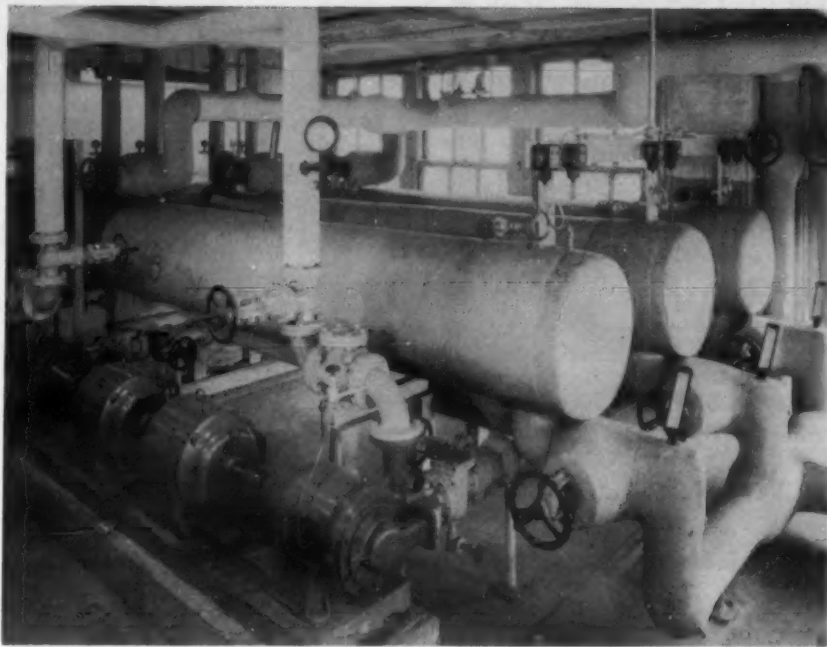
The necessity of close humidity control in the manufacture of candy is due to the fact that the absorption of too much moisture results in stickiness, unappetizing appearance and an un-saleable product. Hard candy, for example, when produced in a low-humidity atmosphere, will not stick together on warm days, but if produced in the presence of an excess of moisture, will stick and become unmarketable. Humidity is maintained at near-50% in most of Loft's candy processing rooms. Recirculated air is chilled some 25° and then reheated, usually to 60-65° F.

### Components Throughout Plant

The components of Loft's air conditioning system are strategically located throughout the plant.

Refrigeration equipment which chills water for air cooling units is in two locations—in the basement and on the fifth floor. (This "water" comprises 10% ethylene glycol to avoid the possibility of freezing and will be referred to hereafter as "glycol solution"). Air cooling units and reheating units are situated throughout the building adjacent to areas to be conditioned.

Refrigeration equipment located in the basement supplies glycol solution for basement, first, and second floor air coolers. The fifth floor system services third, fourth, fifth, and sixth floor coolers.



GLYCOL SOLUTION from these fifth floor P-K coolers goes to air-cooling coils located near processing areas on third, fourth, fifth, and sixth floors. Automatic controls regulate flow of "Freon" through cooler tube banks to maintain outgoing glycol temperature at 35° F.

Air leaving a conditioned space passes to a cooling unit where it circulates around coils cooled by the glycol solution, its temperature being reduced to 43° F. At the same time, a water spray cleans it and increases its relative humidity to 97%. (At 43° F. and 97% humidity the air contains 40 grains of moisture per pound, almost the maximum amount it can hold).

The air next is circulated around a heating coil where its temperature is raised to 60° F., the relative humidity automatically being reduced to 51%. (At 60° F. the moisture content is still 40 grains per pound, but at this temperature it is only 51% of the total moisture the air can hold). From the heating coils air passes directly to the space to be cooled.

### Glycol Solution Chilled

Glycol solution for the coils of the cooling units is chilled by Patterson-Kelley "Freon" coolers, three in the basement, three on the fifth floor. Glycol circulates from air-cooling coils to the "Freon" coolers and back again.

The temperature of the glycol as it returns to the P-K coolers varies with the temperature of the air in the cooling unit. This, in turn, means that the chilling requirements vary.

Glycol leaves the coolers at 35°

F. and to maintain this outgoing temperature under widely varying conditions, "two-circuit" type coolers are used. (Within the shell of each cooler are two independent banks of tubes through which "Freon-12" refrigerant circulates. One or both circuits may be pro-



viding cooling capacity at a given time. Glycol solution, of course, circulates around these tubes, being cooled in the process).

### Automatic Cut Out

The temperature of the incoming solution activates controls which increase or decrease the flow of "Freon" to the tubes, thus increasing or decreasing their cooling effect. Should the flow of "Freon" to any given circuit be cut off entirely, the equipment supplying it automatically cuts out. This equipment, the condensing unit, comprises a 50-hp. double shaft motor, two seven-cylinder radial type compressors, and a condenser.

Six condensing units supply "Freon" to the three Patterson-Kelley coolers at each location. Compressor cylinders cut out one at a time and when all 14 cylinders driven by one motor are out, the motor stops. Conversely, as the load increases, the motor starts up again.

An additional "Freon" cooler, located on the third floor, chills water used in five cooling tunnels. These tunnels are operated at temperatures of approximately 50° depending on the candy being made.

Chilled glycol from the P-K cooler circulates through ceiling coils at the tunnels and air is circulated around them and into the tunnels. The candy, of course, travels through the tunnel via conveyor.

## New Cooling Process May Make Possible Cheaper Gas Imports

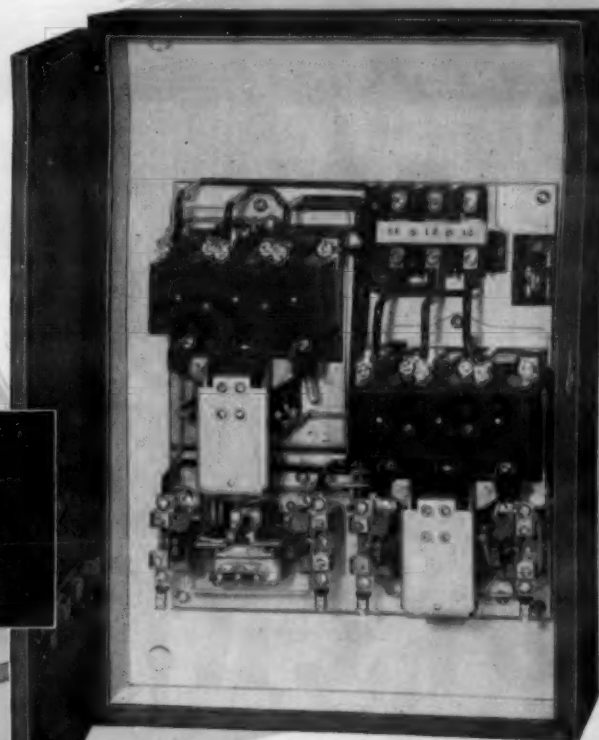
MONTREAL, Que., Can.—A new process using refrigeration may make it possible to import gas more cheaply from the Middle East than from Alberta, Dr. G. S. Hume, director general of the scientific surveys in the federal department of mines and technical surveys, said here.

Dr. Hume told the Engineering Institute of Canada that liquid methane can be reduced to one six-hundredth of its normal volume by refrigeration and study is being given to this form of transportation from abroad.

"If tankers can move liquid methane to England 30% lower than before, then it can also be delivered cheaply to Canadian ports."

**SAVE**  
**\$867<sup>54</sup>**

**ON 60 HP  
AIR CONDITIONING  
INSTALLATIONS!**



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**Use this Part Winding Motor Starter on Your Reduced Voltage Starting Jobs...**

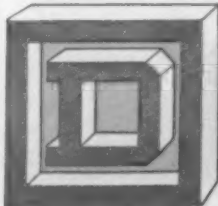
This part winding motor starter can be used with most standard 220/440 volt, Y connected motors, when used at 220 volts.\* It costs only 1/3 to 1/2 as much as the least expensive (primary resistor) starter, depending on horsepower. Yet, its starting torque is essentially the same and the starting current is actually lower.

\*Part winding starters arranged for 440 volts are also available

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**SQUARE D COMPANY**

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As an industry service, AIR CONDITIONING & REFRIGERATION NEWS maintains a file of manufacturers' representatives—serving the refrigeration, air conditioning, and allied industries—in all parts of the country and in some foreign countries.

We periodically check our files to expand this service and request all qualified representatives (except those who have written within the last six months) to send us the following information today on their own letterheads:

1. Complete name of company or individual, address, and phone number.
2. Lines and products now carried (not necessary to list manufacturer represented).
3. Lines and products being added or interested in adding.
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Every  
Time

by

Jimmy  
Hatlo



A normal sense of humor starts at home and is enriched and nourished there. A youngster who gets a really good sense of laughter started early—by a combination of home and teacher influences—can carry it all his life.—*Today's Woman*.

I would like to propose a Fifth Freedom—freedom from ignorance. Think of all the crime, misery, and sorrow that are caused by ignorance. People who think, and who are intelligent feel an obligation toward their fellows and the world, that ignorant people never experience.—*MATTHEW ADAMS*.

The major challenge confronting science today is not to keep people alive but to keep them alive and in good mental health.—*DR. MAURICE L. TAINTER*.

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## Good News for The Ailing

Institute of Pathology of Western Reserve university has discovered a substance useful in combating obscure infections, and in fighting the effects of atomic radiation.

Dr. Louis Pillemer, an expert on blood proteins and immunology, while pursuing a chemical study of a thing named "complement," discovered that a complex fermenting material in animal and human blood can kill bacteria and poisons.

From a component of this "complement," his staff isolated a protein material tentatively dubbed "properdin." This substance seems to play a vital role in the natural resistance of man and animals to infections of all kinds. Furthermore, it can be extracted from both human and bovine serums.

Tests indicate that "properdin" can destroy bacteria, erase virulent viruses, and neutralize cancerous blood cells.

In addition, Dr. Pillemer and his associates believe that "properdin" may partially counteract the effects of atomic radiation. Total body radiation often deposits secondary bacterial infection. Injection of "properdin" protects irradiated humans from this secondary hazard.

Why are we reporting such stuff in an AIR CONDITIONING & REFRIGERATION NEWS editorial? The reason is simple and good:

"Properdin," like all the wonder chemicals which resist disease, must be REFRIGERATED.

## Creative Salesmanship In Essence

What IS creative selling?

Here are several good answers, as given to the editor by top sales managers in our industry:

Persuade people to buy something they didn't know they wanted.

Induce investors to put idle cash to work.

Generate an appetite-to-buy in people who are not particularly hungry for more things.

Sell the benefits of new models, instead of defeatedly offering discounts.

Propose bigger quantity and better quality to prospects who appreciate real good stuff.

Build a family tree of sales from each first purchase, and sell to this family every related item it should possess and use.

Persuade "undecideds" to buy now what they have been hesitating about too long.

Divert a family's discretionary income from beer and bingo to one's own products or services.

Convert casual customers into repeat-buyer friends.

Recognize a prospect's "later" or "Not interested" negatives as defense mechanisms. With adequate information you can break them down.

Sell SERVICE and LOYALTY against price competition.

Follow up a sale so thoroughly that your customer often is reminded he made a wise purchase—which makes him a smart man in his own eyes, and you too!

Above advice explains why and how a Smart Salesman translates desires for luxuries and conveniences into necessities through his wise cultivation of people.



WRITE NOW  
FOR  
BULLETIN U-291

**ONE UNICON**  
serves up to 16 compressors  
**WITHOUT A DROP**  
**OF WATER\***

\*UNICON is a Remote-Type Air-Cooled Condenser

**KRAMER TRENTON CO. • Trenton 5, N.J.**



## Fair Trade News

### Mfr. Shares Responsibility for Claims Made by Distributor Salesmen, FTC Rules

WASHINGTON, D. C.—The Federal Trade Commission recently affirmed a hearing examiner's decision that a manufacturer of stainless steel cookware shares responsibility for the oral statements made by its distributor's salesmen.

The FTC took the action in an order prohibiting U. S. Industries Inc., Chicago (formerly Pressed Steel Car Co., Inc.) and Permanent Stainless Steel, Inc., Houston, Texas, from disparaging aluminum cooking utensils while making claims about the company's own cookery.

The order, adopting an initial decision of August, 1954, denies an appeal from that decision by U. S. Industries. The company declared in its appeal that it should not be held responsible for oral statements by agents of Permanent Stainless Steel, which formed the basis of part of the order.

The appeal also maintained that no cease and desist order should have been issued against the company for statements contained in a brochure not in use in July, 1952, at which time the complaint was issued.

In its opinion, the FTC noted that the company furnished folders under its own name to Permanent Stainless Steel, one of its exclusive enfranchised dealers, for use

by salesmen. The folders were used throughout sales demonstrations made in the home and at promotional dinner parties.

Affirming the hearing examiner's holding that the company shares responsibility for the oral statements made by its distributor's salesmen, the commission made this statement:

"The customary and probable implication from appellant's furnishing respondent Permanent's representatives with brochures containing deceptive claims, under its name would seem to be that this agent's authority to represent appellant was without limitation for the kind and type of sales representation being made. . . .

"We think the appellant, by furnishing these folders to his distributors, provided a very effective shell to be used in hunting customers for appellant's wares. However, he is not absolved by the fact that, to the shell, the salesmen may have added a few buckshot of their own."

The order prohibits misrepresentations that using aluminum cooking utensils will cause cancer or in any way be detrimental to health.

Among other things, it also bans statements that this type of cookery causes the formation of poisons.

### FTC Can't Enforce Fair Trade Laws; Suggests Action Retailers May Take

WASHINGTON, D. C.—The Federal Trade Commission said recently that it doesn't have the authority to enforce fair trade laws but that fair-trading retailers who compete with discount houses can get all the relief they need "through their own lawful efforts."

In a letter to a trade association, the FTC said such retailers can:

1. Ignore the resale prices set by a manufacturer who discriminates in the enforcement of his fair trade contracts or fails to show "reasonable diligence" in enforcement.

2. Seek an injunction in court to stop a discount from selling specific products for less than fair trade prices.

In cases such as the latter, the FTC said, it wouldn't be necessary for the suing retailer to prove the manufacturer intentionally failed to make the discount house observe his fair trade prices. The retailer would merely have to show that the discount knew the fair trade

prices and willfully disregarded them, the agency further pointed out.

The trade association—a retail jeweler group—had asked the FTC to look into the fair trade policing practices of unnamed jewelry manufacturers. In denying the request, the agency outlined the "self-help" program which could be used by retailers of all fair-traded merchandise.

The association argued that solutions available under state law "have proved completely ineffective to remedy the wrong" and aren't the answer to the problem of discount houses and manufacturers who don't enforce their fair trade agreements impartially.

It said a retailer shouldn't have to cut his prices below fair trade levels because this would be a practice he's under "moral compulsion" not to adopt.

The FTC's comment on this was: "It cannot seriously be suggested that price competition is morally reprehensible."

### Colorado Fair Trade Act's 'Non-Signer' Clause Unconstitutional In Court Opinion

DENVER—An opinion handed down by Denver District Judge Robert H. McWilliams, Jr. recently held unconstitutional the Colorado fair trade act's "non-signer" clause.

This clause permitted manufacturers to bind all retailers in the state to minimum resale prices for their products through contracts requiring the signature of only one retailer.

The ruling was made in rejecting the request of Olin Mathieson Chemical Corp. for an injunction to prevent a Denver retailer from selling its products at less than minimum resale prices stipulated in fair trade contracts signed by other retailers.

Judge McWilliams called the fair

trade act "a legally unjustifiable attempt by the State Legislature beyond the proper bounds of its police power to delegate to one class of persons, namely the manufacturer, the right to set minimum prices for which its product must be sold by every retailer of said product within the state."

"It seems to this court," he added, "that to allow the injunctive relief herein sought would so operate as to deprive the defendant of his constitutional rights to acquire, possess, and protect his property. . . ."

The court did not rule on the question of constitutionality of fair trade agreements which are actually signed by retailers with manufacturing firms.

### Holub Heads New Alter Branch In Dallas

CHICAGO—The Harry Alter Co. has announced the opening of another new branch, at 122 Parkhouse St., Dallas, Texas.



Joe Holub

The new branch will be managed by Joe Holub, who formerly managed the Chicago west side branch, and who has been with The Harry Alter Co. for 20 years.

The Dallas branch has over 4,000 sq. ft. of space and will have a complete inventory of refrigeration parts and supplies which will be replenished daily by truck from the Chicago warehouse, according to the company.

The branch will serve the Texas, Arizona, Arkansas, Louisiana, New Mexico, and Oklahoma territory.

The Dallas branch is the third new branch to be opened by The Harry Alter Co. in the past three months.

### Charter Granted

TOPEKA, Kan.—Central States Refrigeration, Inc., Kansas City, has been granted a charter with a \$50,000 capitalization.

### Du Pont Starts Half-Million-Dollar Laboratory for Refrigerant Research

WILMINGTON, Del.—A half-million-dollar laboratory for research into "Freon" fluorinated hydrocarbon compounds and their applications in refrigeration, aerosols, plastics, and miscellaneous fields will be built by the Du Pont Co. at Chestnut Run near here.

Ground already has been broken for the new one-story and basement brick structure, with completion scheduled for early 1956.

The new facilities, replacing smaller space at the company's Jackson Laboratory at Deepwater Point, N. J., will provide laboratory and office space for the "Kinetic" Chemicals Div. which manufactures a wide range of "Freon" compounds.

First floor of the new building, to be constructed as a wing of a \$2,750,000 rubber chemicals research laboratory authorized last month, will include general purpose two-man laboratories, aerosol loading laboratory facilities, refrigerant evaluation and special test area, and office space for a supervisory staff.

Separate facilities will be devoted to evaluation of new products, and new methods and equipment for testing and handling "Freon" compounds.

Other laboratory areas will handle customer technical service

and training of "Kinetic" sales personnel. Reception and conference room facilities will be provided in the adjoining rubber chemicals laboratory, completion of which also is scheduled for early 1956.

Office areas in the new "Kinetic" building will be cooled in summer and heated in winter by a 15-ton heat pump forced air system.

Laboratories also will be served by facilities in the adjoining building with a chilled water system providing summer cooling.

### CORRECTION

The "What's New" column in the Feb. 21 issue of the NEWS carried a story of a Handy-Giant electric welder. This welder is available from Caulhorn Distributing Co., Detroit, not "Caulhorn Mfg. Co."

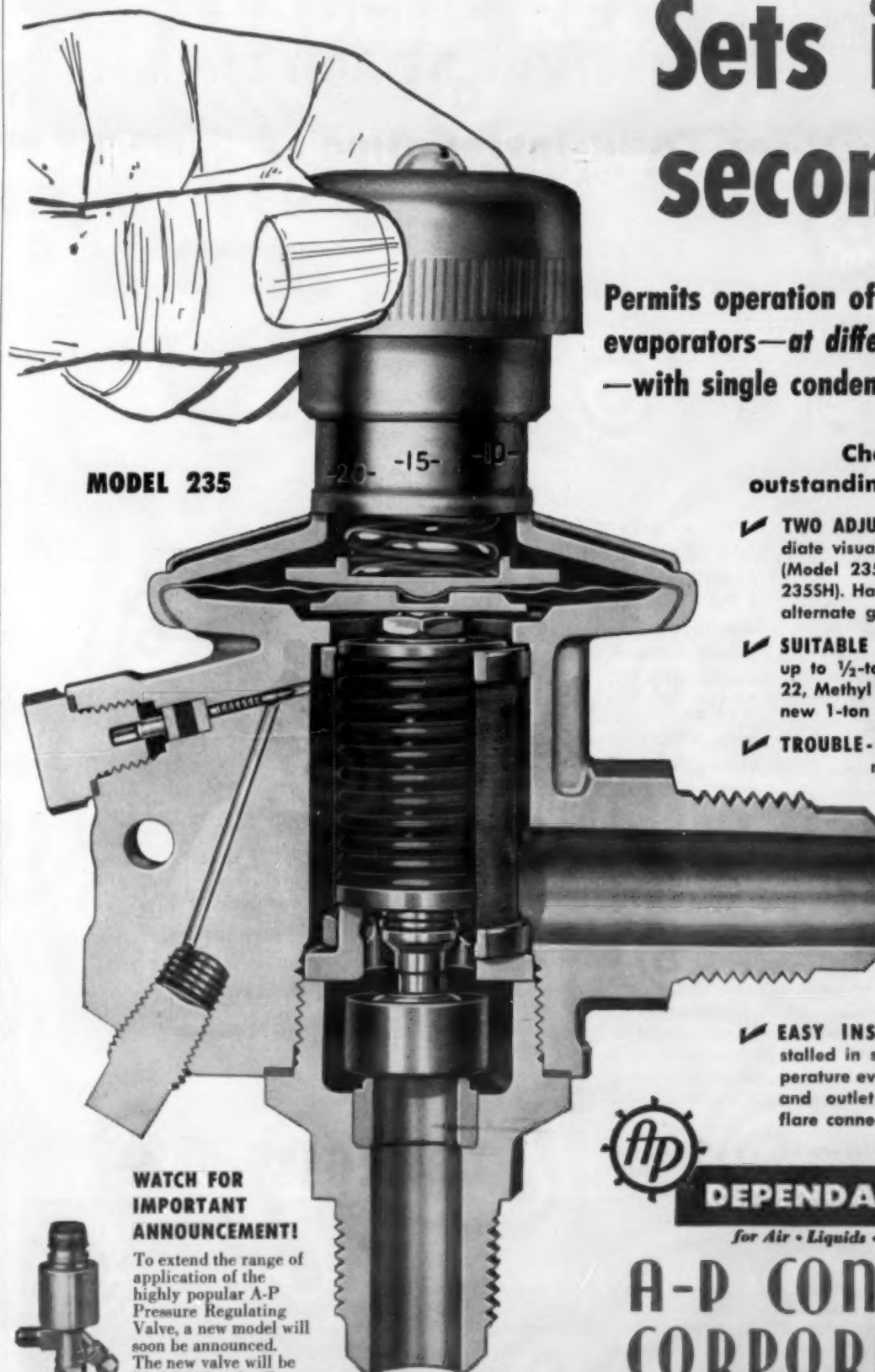
### Ark. Proposal Would End Utility Appliance Sales

LITTLE ROCK, Ark.—Representative Bethel has introduced a bill (HB 576) to amend Section 8 of Act 324 of 1935, to prohibit sale of home appliances by utilities. The measure was referred to the committee on revenue and taxation.

### This Evaporator Pressure Regulating Valve —

# Sets in seconds!

Permits operation of 2 or more evaporators—at different temperatures—with single condensing unit



MODEL 235

### Check these 5 outstanding design features:

- ✓ **TWO ADJUSTMENT RANGES**—immediate visual setting from 0 to 40 lbs. (Model 235S), 20 to 70 lbs. (Model 235SH). Has built-in shut-off valve for alternate gauge setting.
- ✓ **SUITABLE FOR ALL REFRIGERANTS** up to 1/2-ton Freon 12; 3/4-ton Freon 22, Methyl and Sulphur systems. Note new 1-ton model below.
- ✓ **TROUBLE-FREE OPERATION**—100 mesh strainer keeps impurities away from valve seat.
- ✓ **POSITIVE PRESSURE CONTROL**—single diaphragm assures instant response. Pressure maintained within close limits, regardless of load conditions.
- ✓ **EASY INSTALLATION**—valve installed in suction line of higher temperature evaporators. Convenient inlet and outlet 1/2" or 3/8" SAE male flare connections.



**DEPENDABLE Controls**

for Air • Liquids • Gases • Refrigerants

## A-P CONTROLS CORPORATION

2460 N. 32nd Street, Milwaukee 45, Wisconsin  
In Canada: A-P Controls Corp., Ltd., Cooksville, Ontario

### WATCH FOR IMPORTANT ANNOUNCEMENT!



To extend the range of application of the highly popular A-P Pressure Regulating Valve, a new model will soon be announced. The new valve will be Model 238 and will have a capacity of 0 to 1 ton, F-12. Watch for this announcement!



# How Small Grocer Grew from 'Also Ran' to 'Leading Merchant'



SNACK BAR AT THE FRONT OF Butler's Supermarket in Lafayette, Ga. creates activity and catches the eye of passersby.



ISLAND DISPLAY CASE opposite end aisle promotes featured buys at point where shoppers approach the meat department.

By George M. Hanning

LAFAYETTE, Ga.—From an "also ran" small grocery on a side street, Lawson Butler recently jumped to top volume food merchant in town by building himself a small, but completely modern supermarket on the main street and filling it with the latest in refrigeration equipment.

In making his bid for leadership, Butler built a store with 6,000 sq. ft. of selling space. This gave him three times more selling area and he packed it with five or six times as much refrigerated equipment than he had in the old store. The result: doubled volume at a very profitable level.

"I feel the move has paid off handsomely," Butler declared. "I could do more promotion to attract an even larger volume, but I feel that I am making more profit on my present volume than I would with more traffic. I am now doing the largest volume in town—even more than the chain supermarket here."

New refrigeration equipment for the store—107 ft. of display fixtures plus an 8 by 16-ft. walk-in cooler—were sold and installed by Lillie & McCall, Tyler distributor in nearby Chattanooga, Tenn.

The new equipment, all from the Tyler 1955 line, includes 32 ft. of refrigerated produce case, 24 ft. of dairy case, 12 ft. of open island-

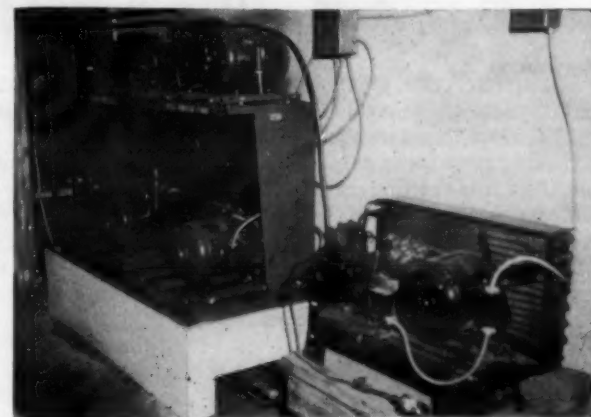
## Commercial Refrigeration



24 FT. OF SELF-SERVICE meat case and 10 ft. of service meat case line rear of Butler's supermarket. Five-ton air conditioner cools rear of store while another takes care of front.



FROZEN FOODS are sold from open case that can be reached from two aisles, speeding up sales in a growing department.



COMPRESSORS ARE NEATLY STACKED in back room just behind door leading to sales floor. This is a convenient location and helps keep aisle clear for traffic.

### PROTECT YOUR SYSTEMS!

## There's a DETROIT Strainer for YOUR installation



685 800 Series  
Y Type—Sweat  
Cleanable



685 800 Series  
Y Type—Threaded and Flanged  
Cleanable



685 800 Series  
Y Type—Threaded  
Cleanable



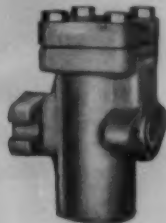
685 300 and 400 Series  
Straight—S.A.E. or Sweat  
Non-Cleanable



685 500 Series  
Straight—S.A.E. or Sweat  
Cleanable



685 600 Series  
Angle—Sweat  
Cleanable



No. 782  
Straight—Flanged  
Cleanable



685 700 Series  
Direct Conn.—Threaded  
Cleanable

Designed for refrigerants, water, oil, air and general usage, DETROIT Strainers are available in sizes up to 3/4" S.A.E., 3/4" sweat and 1 1/4" F.P.T. with flange. Standard strainers are equipped with 60 and 80 mesh reinforced Monel screens. Finer meshes furnished on special order.

With as much as 180 square inches of screen area, DETROIT Strainers are produced in both cleanable and non-cleanable models. They give you the ultimate in valve seat protection.

DETROIT CONTROLS provides you with a single source for a complete line of Expansion Valves, Solenoid Valves, Strainers, and Controls.

See your DETROIT Wholesaler for complete information.

## DETROIT CONTROLS CORPORATION

5900 TRUMBULL AVE. • DETROIT 8, MICHIGAN  
Division of AMERICAN RADIATOR & STANDARD SANITARY Corporation



Representatives in Principal Cities • Canadian Representatives in Montreal, Toronto, Winnipeg—Railway and Engineering Specialists, Ltd.

AUTOMATIC CONTROLS for REFRIGERATION

AIR CONDITIONING • DOMESTIC HEATING • AVIATION • TRANSPORTATION • HOME APPLIANCES • INDUSTRIAL USES

Serving Home and Industry

AMERICAN STANDARD • AMERICAN BLOWER • CHURCH SEATS & WALL TILE • DETROIT CONTROLS • KEWANEE BOILERS • ROSS EXCHANGERS • SUNBEAM AIR CONDITIONERS

type frozen food case, 10 ft. of service meat case, 24 ft. of self-service meat case, and a 5-ft. refrigerated display table for meat specials.

Also on the sales floor are a 7-ft. Acco open ice cream case and an Orley freezer used for merchandising frozen fish.

One unusual feature of the store is a snack bar located right up front opposite the entranceway. The snack bar is equipped with a 6-ft. beverage cooler, a Kelvinator ice cream cabinet, and a drinking water cooler.

"I put the snack bar in mainly for my own employees," Butler explained. "I felt I was losing too much of their time when they went out to eat as there are no eating establishments close by. So to reduce this lost time, I gave them a place right in the store where they can eat."

"Customers, too, like the convenience of having a place where they can grab a bite to eat while they shop. Being right up front it creates activity and catches the eye of people going by. Often they will be reminded of something they need and stop in to shop."

While these are definite advantages gained, Butler is not so sure that the snack bar will be a profitable department on its own sales. He pointed out that traffic there is very erratic, with rush periods punctuated by long spells of inactivity.

Another feature that Butler considers to be very worthwhile is the

installation of an intercommunication system and a public address system. The intercommunication system connects the manager's booth at the front with five locations around the store. With it, he can speedily locate any employee he wants and can direct shelf-stocking operations without leaving his station.

The public address system, with speakers both inside the store and outside the main entrance, permits him to announce specials to shoppers and to remind them of products the store carries.

"This system costs only a few hundred dollars," Butler said, "but is a big help in drawing trade—especially the outside speaker."

Other traffic-pulling features of the store include air conditioning through two 5-ton packaged General Electric units, one located at the rear of the store and the other at the front.

In the backroom, right next to the door leading into the selling area, B. C. McCall, president of Lillie & McCall, racked up four water-cooled compressors handling the open type cases. These include a 1 1/2-hp. unit for the vegetable cases, a 2-hp. unit for the open meat cases, a 2-hp. unit for the frozen food cases, and a 3-hp. unit for the dairy cases.

Next to this rack sits a 3/4-hp. Lehigh air-cooled condensing unit serving the closed meat case. A Kelvinator water-cooled 1 1/2-hp. condensing unit, located elsewhere, serves the walk-in cooler.

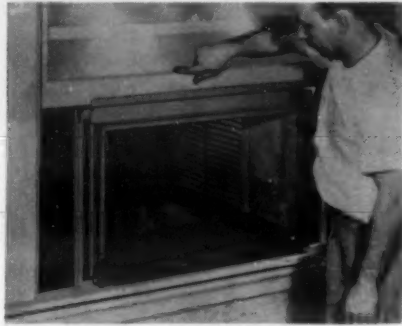


## 'Expando-Mount' Speeds Installation Of Mitchell Room Air Conditioners

An innovation which makes it possible to remove a room air conditioner from its shipping carton, install it in a window, and place it in operation—all within five minutes—is a feature claimed for the 1955 line of air conditioners produced by Mitchell Mfg. Co., Inc. Here, in pictures, is how it is done:



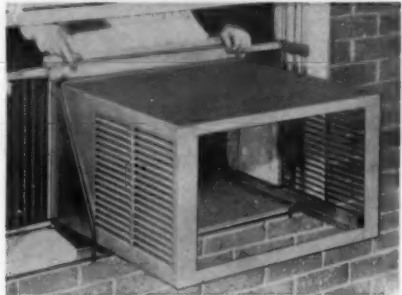
1 First step is to peel the protective covering from sponge rubber sealer strips and press them against "expando-mount" wings at each side of the cabinet.



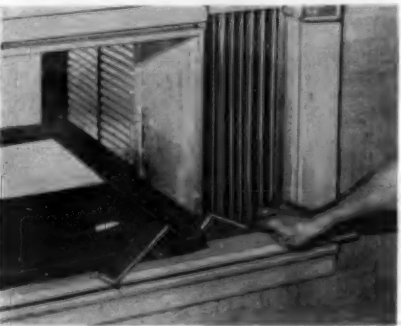
2 Cabinet then is placed and centered in window frame. Window is lowered to hold cabinet in place.



3 Expandable wings now are slid partially open and right and left "L" brackets are inserted in each side.



4 After "L" brackets are fitted and locked securely in place, expandable wings are slid firmly into position against window frames. Window sash is raised and expandable wings are locked into position by tightening two thumbscrews.



5 Sponge rubber sill gaskets are cut to length and inserted between expandable wing panels and sill plates.



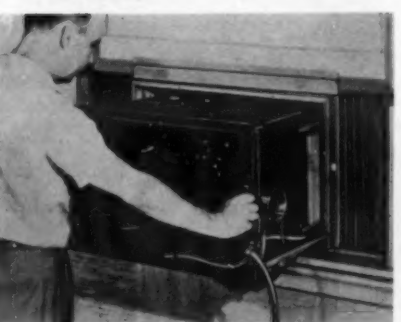
6 Sawtooth sponge rubber inserts are cut to length and placed in position to seal openings of expandable wing channels.



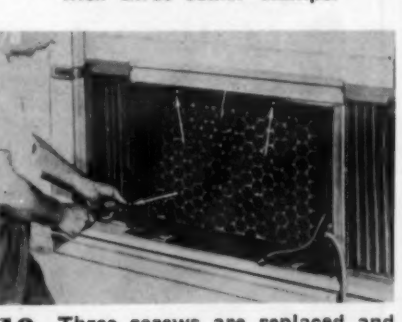
7 Sash sealer strips are cut to length and pressed in place against top of expandable wings.



8 Felt window sealer seals opening between upper and lower window sashes. Sealer is secured to top of lower window with three sealer clamps.



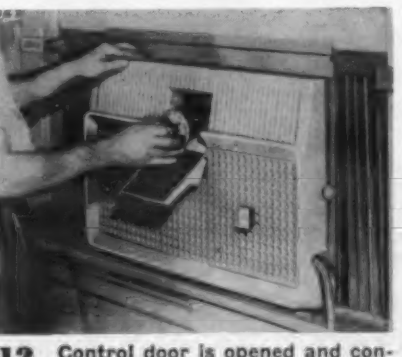
9 Chassis is inserted and slid forward into the completely installed cabinet.



10 Three screws are replaced and tightened, holding chassis securely in cabinet.



11 Plastic front is placed on the unit and secured with captive thumbscrews at each side of the cabinet.



12 Control door is opened and control knob is slipped on shaft. With knob turned to "off" position, electrical cord is plugged in and the unit is ready for use.

## Dominguez Takes New Sales Post with G-E

BLOOMFIELD, N. J.—The appointment of Carlos E. Dominguez to the staff of the national accounts sales unit of the General Electric Co.'s commercial and industrial air conditioning department has been announced by W. F. R. Karsten, department marketing manager.

Dominguez will assist the unit's manager, Bert Natkin, in carrying out expanded sales programs of the unit.

The national accounts sales unit was formed in April, 1954, to provide a central purchasing contact for large national customers for G-E packaged air conditioners and drinking water coolers used in business and industry.

Dominguez has been with General Electric since 1947 and has held varied positions in sales and sales planning. He will have his office at 570 Lexington Ave., G-E headquarters in New York City.

## Pritchard Appoints 2 Sales Representatives

KANSAS CITY, Mo.—Karl E. Johnson, vice president and general manager of J. F. Pritchard & Co. of California here, manufacturer of cooling towers for industrial and air conditioning applica-

tions, has announced the appointment of two new sales representatives in the south.

They are Brownlee-Morrow Engineering Co., Birmingham, Ala., and Rittelmeyer & Co., Inc., Atlanta, Ga.

The former firm was organized in 1952 as a partnership by J. L. Brownlee and Gordon Morrow. It will represent Pritchard in Alabama and the western tip of Florida.

John M. Rittelmeyer, president of Rittelmeyer & Co., started in business in 1925 as a manufacturer's representative. Donald M. McRae is sales manager and Michael A. Dailey chief engineer of the concern, which will represent Pritchard in Georgia, eastern Tennessee, and eastern and southern Florida.

## Orange, Va. Firm Named G-E Weathertron Dealer

RICHMOND, Va.—Appointment of W. A. Sherman Co., heating contractor in Orange, Va., as a G-E Weathertron dealer has been announced by General Electric Supply Co. here.

The Sherman firm has put a YR50 5-ton unit on display, complete with display panels, and uses it to heat and air condition the entire display room, according to A. R. Raney, Jr., G-E Supply commercial specialist. He added that considerable interest was expressed by the town immediately.

## Carrier Promotes William Hood

SYRACUSE, N. Y.—William Hood has been named acting director of engineering for the Unitary Equipment Div. of Carrier Corp., it was announced recently by John H. Holton, vice president and general manager of the division.

Hood, manager of Carrier's residential development department for the past year, assumes the duties of Sam Shawhan, who has been appointed to a special assignment. Shawhan has been named assistant to the president.

A graduate of the University of Wisconsin, Hood was instrumental in the development of the manufacturer's extensive line of residential equipment.

He holds membership in the American Society of Refrigerating Engineers and several other groups.

## Oberc To Distribute 'Aquasaver' Towers

DETROIT—J. M. Oberc, Inc., distributor of refrigeration, heating, and air conditioning equipment and supplies here, has announced its appointment as distributor for Peerless "Aquasaver" cooling towers in southeastern Michigan.

# LEADERS RELY ON LAU

## FOR SUPERIOR DIRECT DRIVE BLOWERS



### Lau Direct Drive Blower

THE COMPLETE BLOWER PACKAGE

*Put your Problems up to Lau*

Our engineering experience is at your disposal. Write for Lau Blower Catalog 707.

**No belts, no pulleys, no expensive motors to buy! This Blower has enabled several furnace and air conditioning manufacturers to save from \$4 to \$6 per unit on their equipment costs, without sacrificing efficiency or performance. A compact, efficient, and inexpensive co-ordinated unit—built into your product quickly and easily. Principal features:**

Sizes from DD7 through DD9. Capacities up to 1200 cfm. Standard motors are shaded-pole type; 6 pole, 115V, 60 cycle, AC. Motors of 1/8 or 1/4 hp available for DD9 models; 1/10 hp for DD7 only. Lau adjustable motor mounting bracket permits fitting of motors from several different motor manufacturers; thus complete freedom in motor source selection. Standard blower assembly consists of blower wheel, housing with cut-off, and motor. Motor assembled in mounting with Neoprene mounting cushions; or standard resilient motor mountings available. Lau Direct Drive Parts Package—for customers desiring to purchase motors direct, Lau offers a complete parts package of every item needed, except motor, to complete the blower. Easy to handle, packaged 4 per carton, extremely low priced.

**THE LAU BLOWER COMPANY • 2002 Home Avenue, Dayton 7, Ohio**

In Canada • The Lau Blower Company of Canada, Ltd., Kitchener, Ont., Canada

LAU World's Largest Manufacturer of Air Conditioning Blowers



## What's New

When requesting further information on new products, please use "Information Center" form.

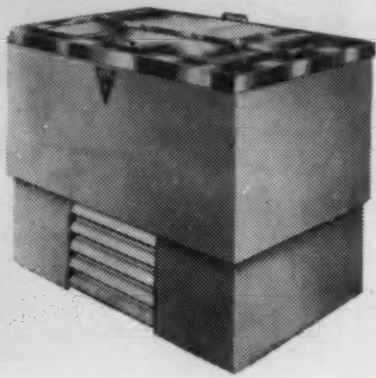


### Silver Solder Flux Can Be Used on Variety of Metals

—KEY NO. E-320—

PHILADELPHIA—A flux which claims to increase the bond of silver solder on stainless steel, monel, nickel, copper, brass, bronze, and steel has been introduced by Farrelloy Co.

Called "AG Flux," it is said to have a low melting point and can stand a wide heat range with resistance to oxidation. Residue can be removed by washing with hot water.



### Dairy, Beverage Case Is Accessible from Both Sides

—KEY NO. E-321—

ST. LOUIS—A new, low-priced milk and beverage cooler with a capacity of 360 half pint bottles is being introduced by Ideal Cooler Corp.

The cooler is all metal construction, finished in baked-on enamel with stainless steel top and lids.

The cooler is said to be particularly suitable for the bottling and dairy trade because four refrigerated dividers prevent loss of refrigeration when lids are removed. The case is accessible from either side.



### Signal Window Fans Are Automatically Reversible

—KEY NO. E-322—

MENOMINEE, Mich.—Automatic, electrically-reversible portable window fans with "Free-Flow" grille and "Breeze-Diffuser" action have been introduced by Signal Electric Div., King-Seeley Corp.

The new grille moves air sideways quietly without drafts. Direct current of air can be obtained by turning fan around, flicking reversing switch.

All models have the "Thermostatic Brain," for automatic on and off. Electrically-reversible action offers instant exhaust or intake air delivery.

Fans retail at \$39.95 with 12-in. blade; \$62.95 for 16½-in. blade; and \$67.95 for 20-in. blade.

### Volt-Ohmmeter Is Designed In Pocket Size

—KEY NO. E-323—

CHICAGO — A volt-ohmmeter not much larger than a package of cigarettes has been designed by Simpson Electric Co. here.



The instrument is claimed to have a sensitivity of 10,000 ohms per volt on a.c. and d.c. Fourteen measurement ranges are available—five for a.c. voltages, five for d.c. voltages, and four for d.c. resistances.

The "Midgetester" model 355 will retail for \$29.95.



### New Automatic Defrost Line Shown by Dole

—KEY NO. E-324—

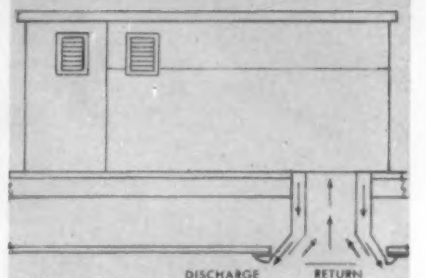
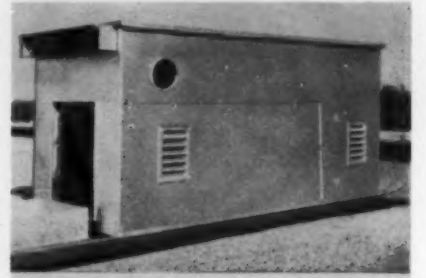
CHICAGO — Dole Refrigerating Co. has announced a new line of automatic defrost products called the Heat-Cel line.

Heat-Cel is a holdover plate which stores heat for defrosting low temperature evaporators. It may be used on new or existing installations.

Advantages claimed are: the convenient plate design allows for easy mounting; an independent

source of heat for the plate solution gives consistent defrosting performance regardless of varying ambients; a low wattage heater controlled by a thermostat temperature of the solution in the Heat-Cel at a point for maximum defrosting efficiency.

Each Heat-Cel includes a kit consisting of a timer, solenoid valve, and a shut-off valve.



### New Air Conditioner for One-Story Buildings

—KEY NO. E-325—

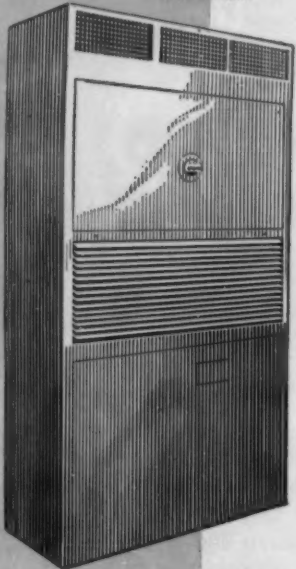
CLEVELAND—A new approach to cooling of one-story industrial and commercial buildings is claimed by Alco Refrigeration, Inc. Entire installation of this self-contained unit is made on the roof, out of sight and hearing, but easily accessible for service.

Only inside evidence of the "Airmaster" is a single opening, made in the ceiling, for the combination air-diffuser air-return.

The manufacturer further claims that the unit is cheaper to install and to operate. In multiple unit installations, each Airmaster is actuated by its own thermostat for economical, zone-temperature control.

There's money in the air...  
when you sell **AIRTEMP!**

PACKAGED  
WATER-COOLED  
AIR CONDITIONERS  
in 6 models, from  
2 to 15 H.P.



PACKAGED WATERLESS  
(AIR-COOLED)  
AIR CONDITIONERS—  
no water needed,  
no plumbing required.  
2, 3, 5 and 7½ H.P.



*are you getting the right  
advertising support?*

### HERE'S ADVERTISING KEYED TO YOUR BEST MARKETS!

Consistently, year after year, Airtemp advertising is targeted to the best markets for Packaged air conditioning, as determined by actual sales and market potentials. In the trade journals read most by people in these businesses and professions, Airtemp advertising talks Packaged air conditioning in terms of its specific benefit to them. And experience has proved this to be the most effective kind of advertising support a dealer can have!

It will pay you to have the facts on all of the reasons why the Airtemp Packaged Cooling Franchise is your most profitable choice today. Write to Airtemp Division, Chrysler Corporation, Dayton 1, Ohio.

**Airtemp**  
DIVISION OF CHRYSLER



AIR CONDITIONING • HEATING FOR HOMES, BUSINESS AND INDUSTRY

## Information Center

For more information on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

### What's New or Current Literature Available

Key No. ....	Key No. ....
Key No. ....	Key No. ....
Key No. ....	Key No. ....
Key No. ....	Key No. ....

Products Advertised  
(list name, page, and issue date)

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(PLEASE PRINT PLAINLY)

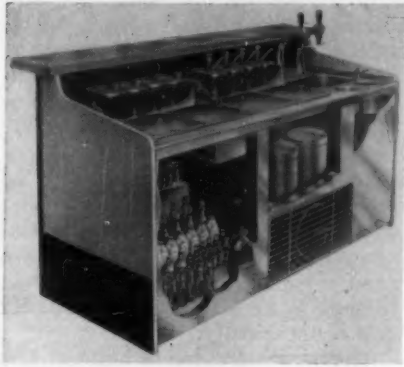
Name ..... Title .....  
Company .....  
Street .....  
City ..... Zone..... State.....  
Type of Business .....

MAIL THIS FORM TO

AIR CONDITIONING & REFRIGERATION NEWS  
Readers Service Dept.  
450 W. FORT ST. DETROIT 26, MICHIGAN



## What's New (Con't)



### Self-Contained Fountain Designed for Small Space

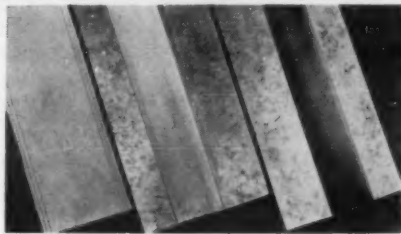
—KEY NO. E-326—

NEW YORK CITY—A compact, self-contained soda fountain which measures 5½ ft. long and 27 in. wide has been designed by James J. Gavigan & Co.

"Gay Bar" has a 7-cu. ft. refrigerator with sliding chipped ice pan, provides four syrup jars and pumps, four crushed fruit jars and covers, and the ice cream storage compartment holds four containers.

Below the ice cream storage is a 50-gal. per hour carbonator and ¼-hp. compressor.

Gay Bar is available in two tone color combinations with Formica top.



### Flexible Duct Connectors Available In 3 Types

—KEY NO. E-328—

CHICAGO—Three types of flexible duct connectors are now available from Grant Wilson, Inc. to meet problems in heating, ventilating, and air conditioning system installations.

"Flexi-Duct" is a woven asbestos flexible tape available in 50-ft. rolls 6 in. wide with selvaged edges.

"Vibra-Stop" connectors come in two basic materials—asbestos and canvas. A 4-in. strip of asbestos or canvas is factory sealed to a 4-in. wide No. 1 prime galvanized metal on one side, a 3-in. on the other. Vibra-Stop comes in 100-ft. rolls.

### Hole-Cutting Tool Is Calibrated to Pipe Sizes

—KEY NO. E-329—

ELMHURST, ILL.—A new model 400 hole cutting tool has been introduced recently by Robertson and Ruth.

The saw, called "Dial Saw," will cut any size hole from ⅛ in. to 3½ in. in diameter in metals, woods, or plastics.

Three high-speed steel cutting blades adjust simultaneously to size desired by rotating the dial. Dial is calibrated in pipe and conduit sizes in addition to a scale in ⅛ in.

Model 400 retails for \$14.95. Replacement blades are available.



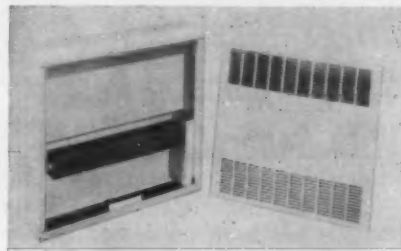
### Free-Standing Room Unit Simplifies Remodeling

—KEY NO. E-327—

DETROIT—A room air conditioner with a free-standing cabinet which measures 18 in. high, 23½ in. long, and 6 in. deep has been announced by Hydraline Products Div., Borg-Warner Corp.

Model FS-135 is designed to facilitate remodeling where costly redecorating would be involved. Provision has been made for wiring from the floor and cabinet is of sufficient width to conceal supply and return piping.

Unit is finished in rust-proof prime grey and may be painted to harmonize with room decor.



### Baseboard, Cabinet Heaters For Home, Industry

—KEY NO. E-3211—

BROOKLYN—Electric space heaters specially designed for industrial, commercial, and home applications has been announced by Electrovector, Inc.

Units are constructed as baseboard radiation and cabinet heaters. These can be installed against the wall or recessed.

Features include steady, uniform heat; quiet operation; no moving parts; individually controlled heat; flexible, easy installation.

### Flame-Resistant Tape Seals Heating, Cooling Ducts

—KEY NO. E-3212—

ST. PAUL—A new flame resistant plastic tape for joining cold and warm air ducts and sealing the joints in home and industrial heating and air conditioning installations was announced recently by Minnesota Mining & Mfg. Co. here.



Tradename "Scotch" brand plastic tape No. 474, the new aluminum-colored tape is flame resistant and will not support combustion, the company says. Independent laboratory reports state that the tape "meets all the requirements of the Standard for Flameproofed Textiles as set forth in NFPA 710 and on page 122 of the Fire Protection Equipment List of January, 1954."

One wrap of the new tape is all that's needed for each sealing application. Test users report that the taping method cuts over-all installation time in half, and that the tape provides a more efficient seal against air loss.

Designed for use on round, square, or flexible metal ducts, the tape features high stretch; a 4-mil thickness; and withstands temperatures up to 240° F.

Its vinyl plastic film backing will withstand acids, alkalis, salt solutions, water, alcohols, and hydrocarbons.



### Outdoor Condensing Unit Operated At High Temp.

—KEY NO. E-3213—

UTICA, N. Y.—A new residential high-capacity outdoor condensing unit for operating home air conditioners was introduced recently by the Brunner Mfg. Co.

The unit, housed in 45-in. high steel "dog house," contains an air-cooled Brunner condensing unit, capable of delivering 36,000 B.t.u. per hour at ambient temperatures up to 110° F.

It was indicated that the unit was designed specifically for remote installation in connection with interior air handling equipment and will be partially applicable in the south where remote installations are required.

### ANACONDA REFRIGERATION PRODUCTS

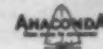


### OFF TO A GOOD INSTALLATION...

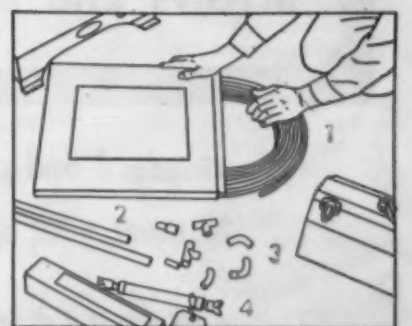
Why? Because the copper piping on this installation, as on all he makes, is going to be an all-Anaconda job. Uniform temper and exact fitting for fast connection speed up his work... help maintain his reputation for quality. He buys only

from his regular wholesaler and gets the prompt, reliable service he wants. Your own jobber will meet all your piping needs with the same dependable service. Ask for ANACONDA Refrigeration Products. Look for the ANACONDA Trademark.

THE AMERICAN BRASS COMPANY, Waterbury 20, Conn.  
In Canada: Anaconda American Brass Ltd., New Toronto, Ontario



### COMPLETE LINE OF ANACONDA REFRIGERATION PRODUCTS



4 QUALITY PRODUCTS, EACH THE RESULT OF MODERN MANUFACTURING METHODS

1. Copper tubes in 50-ft. coils.
2. Hard copper tubes in straight lengths.
3. Fittings (elbows, tees, couplings, unions, adapter and reduction combinations, etc.).
4. American Vibration Eliminators.



**Filtrine** Since 1901

**Tank Type  
WATER COOLERS**

- ◆ Extra-large storage
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- Capacities: 5 to 500 g.p.h.  
Storage: 2 to 240 gals.  
Water coolers for all uses  
factory-packaged with your  
condensing unit. Write for  
literature.

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## Hotpoint Distributor Contest Boosts Sales 100% In Some Areas; Winners Announced

CHICAGO — Hotpoint appliance sales increased as much as 100% in some areas as a result of the recent distributor contest for the President's Award for Achievement in Distribution, Howard J. Scaife, sales manager, said.

National winner of the year-long sales incentive contest was General Electric Supply Co., Charlotte, N. C., who will again be awarded the master trophy. This is the third consecutive year that Gesco of Charlotte has taken top honors.

Sharing the national spotlight was Gesco, Greensboro, N. C., who was declared national branch winner. According to Scaife, this branch had the highest NEMA percentage figures of any distributor in the United States, including all main houses.

Other winners included Class I Main house winner Gesco, Jacksonville, Fla.; Class II Main house winner Bluefield Supply Co., Bluefield, W. Va.; Class I Branch house honorable mention, Gesco, Rockford, Ill.; Class II Branch house honorable mention, Gesco, Augusta, Ga.

Gesco, Orlando, Fla. was named Class II Branch house winner, for percentage improvement in all six major appliances.

Presentations will be made in

March to the winners, Scaife said. The awards are made annually based on activities, including a well balanced sales job, trade area percentage compared with national averages and balanced dealer organization.

Dealer upgrading, distributor personnel trained to handle various areas of business, distributor facilities, and distributor activities making use of factory and local programs were also considered.

John C. Sharp, president of Hotpoint, will deliver a keynote address at the meeting.

Afterward, there will be a panel meeting to discuss mutual problems and exchange of ideas for improving all phases of marketing distribution.

### Gustafson Named President Of Arnold Wholesale Corp.

CLEVELAND—Appointment of L. L. Gustafson as president of Arnold Wholesale Corp. was announced here recently. In his new position Gustafson succeeds the late R. C. Hager.

Gustafson joined Arnold in 1952. In 1953 he was named vice president and general manager of the appliance distributorship, according to the announcement.

## Briggs Takes Asst. Adv., Sales Promotion Post With General Controls

GLENDALE, Calif. — Huntly Briggs has been appointed assistant advertising and sales promotion manager for General Controls Co., it was announced by Henry B. Safford, Jr., advertising and sales promotion manager.

Briggs previously held the same position at General Controls in 1951 before leaving to work in the advertising and sales promotion department of Turco Products, Inc. in 1954.

Briggs' background includes both technical and industrial experience with Lockheed Aircraft Corp. and with the United States Navy's aircraft modification center at the San Diego Naval Air fleet activity. He served as inspector, production planner, and aircraft modification supervisor.

A business administration graduate of Woodbury college in 1948, Briggs entered the employ of Lever Bros. and served as sales and sales promotion representative in the Los Angeles area before joining General Controls.



Huntly Briggs

## American Brass To Begin Construction of New Brass Mill Plant Near Los Angeles

LOS ANGELES—The American Brass Co. will soon begin construction of a new brass mill in the Paramount district of Los Angeles, according to John A. Coe, Jr., president.

More than 200 west coast business and civic leaders heard Coe outline the plans at a luncheon given recently at the Hotel Statler here. He said the company's land "comprises about 45 acres situated easterly of Garfield Ave. and northerly of Compton Blvd."

The new mill will be built for the production of copper and copper-base alloys in the form of sheet, strip, rod, tubing, and drawn copper products. Annual capacity is estimated to be about 30,000,000 lbs.

The building will be one-story construction of heavy steel and will be equipped with overhead crane service throughout. The mill and office will require 330,000 sq. ft. of floor space, and, together with the land, will involve an expenditure of \$13,000,000.

The Union Pacific Railroad, whose tracks run along the east

side of the property, will serve the plant site. When the new mill is in full operation, it will furnish employment for approximately 500 people.

In his remarks, Coe said: "In recent years it has become apparent that, with the rapid industrial growth of the west coast area, we need a basic mill to serve our customers in this territory efficiently and economically."

Hence, we decided to build in Los Angeles. We have been operating sales offices in Los Angeles, San Francisco, and Seattle for many years.

"This expansion will in no way affect our operations in any other part of the country beyond the fact that it will release needed capacity for servicing established markets."

The company's statement came on the heels of two other announcements made recently in which American Brass revealed plans for the construction of a \$25,000,000 aluminum fabricating plant at Terre Haute, Ind., and a \$2,500,000 production facility for flexible metal hose and tubing at Mattoon, Ill.

All three projects will be started this year.

When completed, the company will have a total of 12 factories located throughout the United States, and one in Canada.

### Chase Supply Plans Show In Chicago May 4

CHICAGO — Chase Supply Co. will conduct an educational show for Chicago area contractors on May 4, the company announced recently.

It said the show would be patterned after previous shows staged by the company with manufacturers displaying their latest products and having representatives available to discuss applications.

Lectures and a film furnished by the Air Conditioning and Refrigeration Wholesalers entitled "How to Sell Quality" are additional features.

The show will run continuously from 2 to 10 p.m.

### Cincinnati RSES Hears Kaminsky Discuss Liquid Chiller Use

CINCINNATI—Guest speaker at the February meeting of the Cincinnati Chapter, Refrigeration Service Engineers Society, was Aaron R. Kaminsky of Heat-X, Inc.

His subject was "Liquid Chillers for Industrial, Commercial, and Residential Usage." Twenty-four members attended the meeting, held in Covington, Ky.

### Consider Legislation To Require Inside Safety Latches on Refrigerators

WASHINGTON, D. C. — Sen. John J. Sparkman and Rep. Kenneth A. Roberts, Alabama Democrats, announced recently that they intend to sponsor legislation requiring that all refrigerators shipped in interstate commerce be equipped with inside latches.

Sen. Sparkman and Rep. Roberts sponsored identical bills (S. 2891 and H. R. 7920) in the 83rd Congress. However, the Senate and House Interstate Commerce Committees failed to act on the measures.

In a joint statement, they said state and municipal laws and the efforts of citizens are not enough "to cope with the yearly influx of millions of new and potentially dangerous refrigerators."

The cost of producing a safety refrigerator lock, they asserted, "is comparable with that of manufacturing the present snap lock, and no expensive changes of refrigerator configuration are necessary."

# NATIONAL LOCK refrigerator hardware

for • DOMESTIC • COMMERCIAL • LOW TEMPERATURE CABINETS

Surface Type Hardware

"Thru-the-Door" Hardware

Edge-Mounted Hardware

Thermoplastic and Thermo Setting Plastics

Finished Pressure Zinc Die Castings

Standard and Special-Purpose Screws and Bolts

standard and custom-built designs to meet your specific requirements

ask us about them



NATIONAL LOCK COMPANY

ROCKFORD, ILLINOIS • REFRIGERATOR HARDWARE DIVISION

The EXTRA FEATURES you get in

Service-Master

make it your best service body buy



"FREEZE-FREE" HINGES  
Bronze bushings are provided in door hinges to positively prevent binding.

#### CONCEALED FENDERS

Dirt, sludge, and water—thrown by the tires—can't reach compartment walls.



"HIGH-LOW" FLOOR  
Provides added strength—easier handling of heavy loads.

"NO-BOUNCE" RIMS  
The hinged cover keeps parts in the bins, and provides an extra storage shelf.

"PUDDLE-PROOF" CARGO AREA  
A full-width floor drain is built into the head panel.

Service-Master's competent look helps sell your service... reflects your discriminating taste.



Send for this FREE BOOKLET describing all the extra features you get in Service-Master.



Compare Service-Master... feature by feature... with any other make. See why Service-Master is the first choice of servicemen in all parts of the country.

Available in 1/2, 3/4, 1, and 1 1/2 ton sizes.

MCCABE-POWERS AUTO BODY CO.

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5900 NO. BROADWAY • ST. LOUIS 13, MO.

Send me the Service-Master "EXTRA FEATURES" booklet... and have nearest distributor furnish me local delivered prices.

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BUILT TO OUTLAST SEVERAL CHASSIS

### Uses Service Information



ROBERT W. KOSKI

"I do service work and, for that reason I find the refrigeration service articles by Paul Reed and 'Slants on Service' column of particular interest. Articles like 'Reverse Cycle Room Units,' or 'G-E Weathertron' which have appeared were especially valuable to me. Actually, I enjoy the entire newspaper immensely."

R. W. Koski  
273 Ocean Street  
Worcester 2, Mass.

"Look twice — it's worth the price!"  
AIR CONDITIONING & REFRIGERATION NEWS  
"The Newspaper of the Industry"



## Current Literature

To obtain further information on the literature listed below, please refer to key number preceding listing. Please use the "Information Center" form on "What's New" page.

### How To Use Plastic Pipe Offered In Alpha Catalog

—KEY NO. Q-320—

WEST ORANGE, N. J.—How to use and specify rigid plastic pipe and fittings is the subject of a new 12-page catalog offered to design, maintenance, and application engineers by Alpha Plastics, Inc. Catalog is created to enable engineers to learn modern uses for plastic pipe.

It provides useful reference facts on 1/2 in. to 4 in. normal impact and high impact unplasticized polyvinyl chloride pipe and fittings, plus properties and characteristics data, together with detailed drawings and specifications of solvent-type fittings plus the new, injection-molded threaded fittings. Featured is a corrosion chart classifying more than 275 corrosives.

### Catalog Covers Unit Pumps For Cooling Applications

—KEY NO. Q-321—

LANCASTER, Pa. — Lancaster Pump & Mfg. Co., Inc. has announced a new catalog on the Lancaster unit pumps Type M which are specifically designed for air conditioning and refrigeration installations.

This catalog is complete with non-overloading performance curves and specifications on the latest design improvements. It includes the Type M unit pumps from 1/4 to 7 1/2 hp.; all of which are available with mechanical seals and balanced bronze impellers.

### Booklet Suggests Methods For Safeguarding Foods

—KEY NO. Q-322—

ORLANDO, Fla. — A new 20-page booklet, "How To Guard Food Values In Your Refrigerator Or Freezer," is being offered by Tupperware Home Parties, Inc.

Designed to help the housewife get more nourishment from her food and more value out of her purchasing dollars, the illustrated booklet is the result of years of Tupperware experimentation in refrigerated food values.

The booklet includes specific information concerning the best ways and length of time for storing foods. A three-page table, based on information provided by several U. S. government agency food technologists, suggests time limits for safe food storage in non-iced sections of the refrigerator.

In addition to offering a guide for space saving methods, the booklet points out 10 easy steps which answer most questions concerning storage. An accompanying freezer chart supplies facts on freezing time limits, types of necessary storage containers, and other special preparations required for storing foods.

### Steam Heating Equipment Mfrs. Publish Booklet

—KEY NO. Q-323—

CHICAGO—A capsule "refresher course" in the use and specification of steam for heating has been published by the Steam Heating Equipment Manufacturers Association.

The 16-page booklet, "What You Should Know About Modern Steam Heating," is the first step in a program of information to be released by SHEMA. It seeks to give heating system designers a concise source of information that will help them evaluate steam as a heating medium for specific types of installation.

One section of the book is "Outline for Steam Heat System Specification," a checklist for a designer to follow in specifying a heating system with steam. Specifications cover 33 points in the system—from general conditions to final tests and guarantee. Many of the specification points are covered in detail, with exact recommended wordings.

### Infra Insulation Presents Tips on Insulating Attics

—KEY NO. Q-324—

NEW YORK CITY—Helpful installation instructions on insulating attics for protection against heat and vapor flow and timber rot are outlined and illustrated in a recently published Infra Insulation brochure.

In addition to a simple, condensed explanation of the laws of heat and vapor flow, the brochure answers such questions as how and where to install multiple accordion aluminum insulation generally; how to install when rafters are to be completely insulated to the eaves; where collar beams are installed; and where to ventilate to assume proper heat and vapor circulation.

### 3 Brochures Discuss Gas, Oil Heat, 'Air We Live In'

—KEY NO. Q-325—

MARSHALLTOWN, Iowa — Three new brochures designed to explain the principles of the company's heating and air conditioning systems have been released by The Lennox Furnace Co.

The new brochures each tell separate stories on Lennox gas heat, oil heat, and "The Air We Live In."

Brochures on heat list the six basic ingredients required for ideal comfort conditions and illustrate how Lennox equipment features make the achievement possible.

Booklets are 8 1/2 by 11 in. and are illustrated in four-color. This series will be supplemented with a booklet on cooling.

### White-Rodgers Controls Line Detailed In 32-Page Catalog

—KEY NO. Q-326—

ST. LOUIS — A new 32-page catalog describing the complete line of White-Rodgers automatic controls for heating, refrigeration, and air conditioning has been released.

The catalog contains complete information regarding room thermostats, space thermostats, relays, and pressure and hydraulic-action temperature controls.

Included also are all controls for oil and gas-fired systems of both warm air and hot water heating. Featured are the new, "unusually quiet" "Cushioned Power" solenoid gas valves and improved automatic pilots.

Controls for special applications are also shown, such as explosion-proof thermostats, ice-bank controls, indoor-outdoor controls, and many others.

### Brochure Describes New Temperature Control

—KEY NO. Q-327—

WATERTOWN, Mass. — A six-page brochure, Bulletin 42, which describes and illustrates a newly developed instrument designed to control and indicate temperatures of gases, liquids, or hot plates over wide ranges has been published by United Electric Controls Co. The brochure gives typical applications, outstanding features, and engineering data.

### Worthington Bulletin Covers Pumps for A. C. Systems

—KEY NO. Q-328—

HARRISON, N. J. — Worthington Corp. has issued a new bulletin on "Monobloc" centrifugal pumps used in air conditioning systems.

The new bulletin (No. W-306-B3B) lists in table form a wide selection of pumps and their ratings and capacities for approximate refrigeration tonnages. A chart provides information on net dealer prices, horsepower, weight, and pump sizes and types.

"Drip Proof Motor" dimensions are listed along with corresponding frame and pump sizes.

### 5 Walk-In Coolers Detailed By Nor-Lake Catalog Sheet

—KEY NO. Q-329—

HUDSON, Wis. — Publication of a two-page catalog sheet covering five Nor-Lake walk-in coolers has been announced by Nor-Lake, Inc. here.

The illustrated two-color literature describes the deluxe, economy, metal-clad, and all-metal walk-in coolers and the special walk-in freezer, with the advantages of each unit listed. All coolers and freezers are built to any desired size or height, and comparative square foot cost and shipping weights can be taken from the Nor-Lake price list. Units are available with plug-in refrigeration panel.

### New Edition of Electric Heating Guide Offered

—KEY NO. Q-3210—

PITTSBURGH—A revised edition of the Electric Heating for Homes Guide, a handbook on electric heating, is available from Westinghouse Electric Corp. The 32-page booklet contains information on designing, cost estimating, and installing electric heating systems.

This new edition includes a review of heating fundamentals and an expanded section discussing all factors involved in cost estimating.

Charts for determining heating capacity in a specific room have been brought up-to-date and enlarged. Covering a variety of construction conditions (such as location and thickness of insulation), the charts may be readily adapted to fit almost any set of conditions.

Other sections cover installation of heaters, planning adequate wiring and proper circuit protection, and weather data. Of particular interest is a case history showing step-by-step how to design a typical electric heating system using the principles given in the booklet.

### MISSING SOMETHING?

More and better useful information is yours for the asking. See "What's New" page.

Use Key No. for fastest service.

## NEW B & G DESIGN MANUAL

SHOWS HOW TO CORRECTLY DESIGN COOLING TOWER SYSTEMS

The advertisement features a large image of the "SIX STEP MANUAL FOR SIZING COOLING TOWER PUMPS AND PIPING" by Bell & Gossett Company. To the left of the manual, several mechanical components are illustrated and labeled: B & G 1531 Uni-built Centrifugal Pump, B & G 1522 Uni-built Centrifugal Pump, B & G Evaporator, B & G Condenser, and B & G Heat Exchanger. The manual cover shows a diagram of a cooling tower system with a pump and piping. The Bell & Gossett Company logo and name are visible at the bottom right of the manual cover.

This authoritative Manual fills a long-felt need in the air conditioning and refrigeration industry! It enables you to quickly and accurately size the pump and piping for any cooling tower application. In six simple steps the procedure is given for determining the flow rate required—the static head and pressure drop through the system—sizing the pump—and for a final check to be sure that the most efficient and economical selections have been made. A method of sizing pipes for gravity flow is also outlined in the Manual. Easily read tables and charts shorten designing time. A handy work sheet is included which lists all calculations in correct sequence and prevents possible errors. Every designer of refrigeration and air conditioning systems will find the B & G Manual an invaluable aid.

## NOW... LIQUID EYE®

3/4" and 7/8" Sizes

Indicators  
2,000 SERIES

COMPLETELY ASSEMBLED, TESTED—ready for line installation!

### LIQUID EYE Features:

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- One-piece copper construction.
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Sold by leading Wholesalers. Send for Catalog D-55, covering the complete Allin Line.



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**FREE!** Send to Bell & Gossett Co. for your copy of the B & G Six Step Manual for designing cooling tower systems



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# How 2 Power Elements Control Cycling In Carrier Ice Maker

GRAND RAPIDS, Mich.—How the Ranco two-bulb control operates on Carrier's model 26H ice maker was explained to Michigan servicemen at an ice maker clinic here recently by E. L. Lewis, serv-

ice supervisor for Carrier Corp.

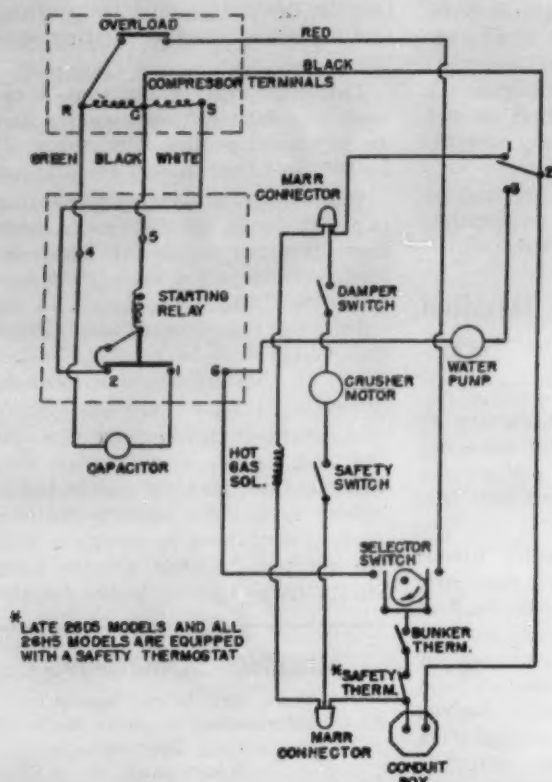
He also outlined several situations which could possibly happen and what would occur if they did.

The Ranco control, he said, has two power elements rather than

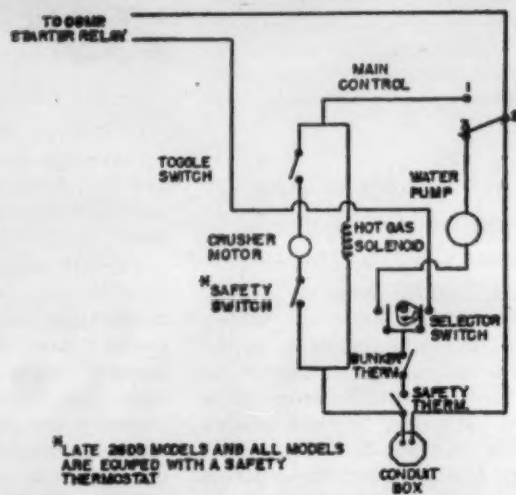
one. These two power elements are inter-connected by an interlocking arm, which acts as a lock to prevent the machine from cycling on one of the two power elements only.

The capillary leading from the power element on the cut-in (right) side of the control is attached to the suction line leaving the primary accumulator. The power element leading from the cut-out (left) side of the main control is located in the overflow well.

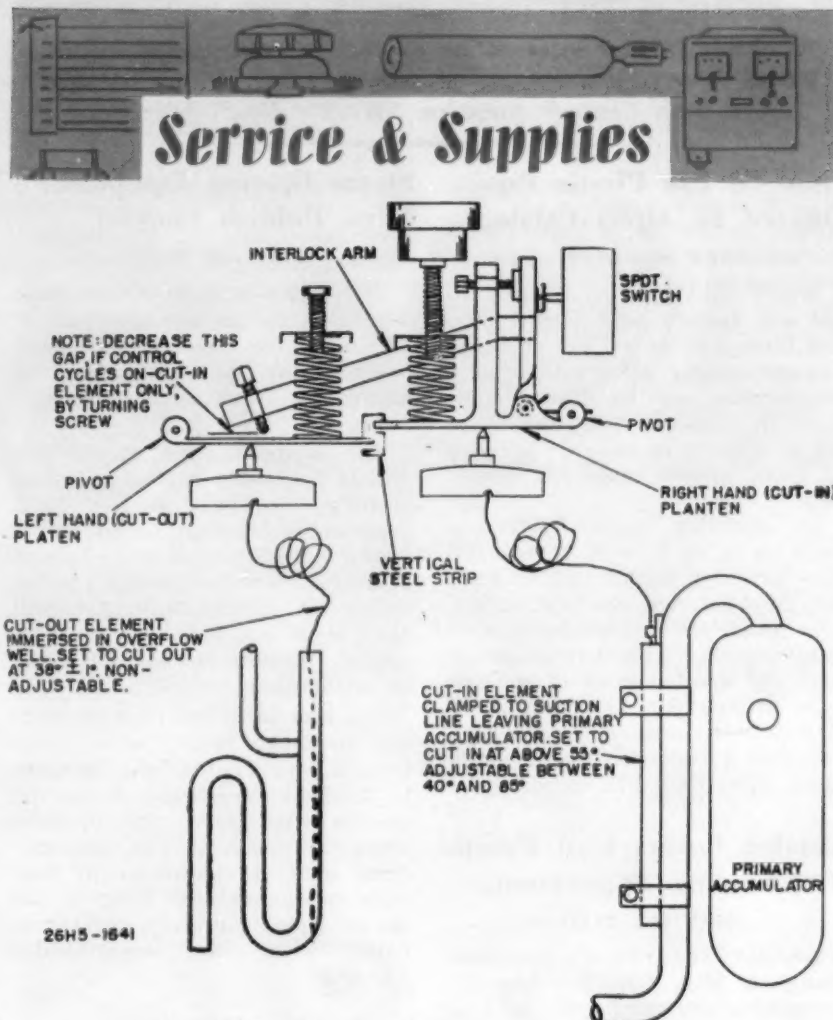
Above the stem in each of the power elements is a steel plate



WIRING DIAGRAM for Carrier automatic ice maker models 26C5, 26D5, and 26H5 with Ranco two-bulb main control.



WIRING DIAGRAM for Carrier automatic ice maker models 26D3 and 26H3 with crush and Ranco two-bulb control.



RANCO TWO-BULB control for Carrier ice maker.

## Now Available for the First Time! Dependable Kelvinator Sealed Compressors



Model DK352C 1/4 H. P. Capacitor Start

Single Cylinder Internally Mounted Sealed Compressors, 10 models 1/4 H. P. through 1/2 H. P. Split Phase—Low Starting Torque Motors and Capacitor Start—High Starting Torque Motors all furnished with "plug-in" combination magnetic start relays with thermal overload protection. Wiring, mounting brackets, and capacitors furnished with capacitor models.

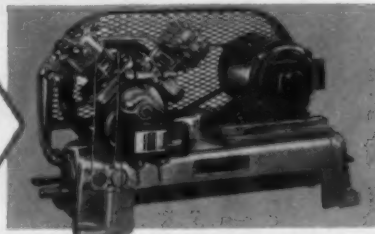


Model K352CR illustrated.  
1/4 H. P. Capacitor Start Sealed Unit

A complete line of internally mounted, hermetically sealed units with an unequalled record of dependability. 1/4 to 1/2 H. P. for a wide range of self-contained or remote applications.

There are Kelvinator  
Condensing Units  
For Every Commercial  
Refrigeration Application

Open-Type: air cooled, water cooled.  
Combination air & water cooled  
space-saving truck units and  
Sealed Condensing Units with a  
Five-Year Warranty



Model OW-75 illustrated.  
1/4 H. P. Water-cooled Condensing Unit

Complete line of open-type, air-cooled, water-cooled, truck and combination air and water cooled from 1/4 H. P. air-cooled through 5 H. P. water-cooled.

called a platen. Both platens have flanges on the sides toward the center of the control.

Looking at the front of the control, there is a vertical strip of steel running from front to back, with two slots in it, located between the two springs. The flange on each platen goes through one of the slots in this vertical strip.

When the control is at room temperature, the platens are in the "Up" position and the flanges are at the top of the slots in the vertical strip of steel. When the machine is turned on, it will immediately start on the freezing cycle.

After the machine operates on the freezing cycle for a few minutes, the suction line leaving the primary accumulator will cool, which, in turn, will cool the cut-in bulb of the main control.

After the cut-in bulb has cooled five or six degrees below its setting, the flange on the cut-in platen will drop to the bottom of the upper slot in the vertical strip of steel. With the cut-in flange at the bottom of the slot, the control of the machine has switched to the cut-out (left) side of the control.

The machine will continue to run until water overflows into the overflow trough and down into the overflow well. When the cold water hits the cut-out capillary, the flange on the cut-out platen will drop to the bottom of the lower slot and switch the machine into defrost.

With the machine in defrost, the hot gas line will warm the water in the overflow well five or six degrees, which is enough to raise the cut-out platen to the top of the lower slot in the strip of steel.

With the flange on the cut-out platen at the top of the slot, the control of the machine has been switched to the cut-in side. You will notice at this time that the cut-in platen will rise slowly to the top of the upper slot.

The cut-in platen is being raised because the hot gas is warming the suction line leaving the primary accumulator. When this flange reaches the top of the upper slot, the control will switch the machine into the freezing cycle.

The above explanation illustrates how the interlocking arm prevents the machine from operating on one side of the control only. In the event the interlocking arm does not function properly, it is possible for the main control to cycle

on the cut-in element of the control. It is not possible, however, for the cut-out side of the main control to cycle the machine.

Below are given several situations which could possibly happen and what would occur if they did.

1. The cut-out platen sticks in the freezing position; that is, the flange at the top of the slot. Tampering with the internal adjustments on the control could cause this.

In this situation, the machine would continue to run on the freezing cycle regardless of the position of the flange in the cut-in element.

2. The cut-out element remained in the defrost position; that is, the flange at the bottom of the slot. When the power element loses its charge, it is unable to raise the platen to the freeze position.

In this situation it is possible for the machine to switch from the defrost position into the freezing position on the cut-in side only. It will remain in the freeze position only a few minutes; that is, until the suction line leaving the primary accumulator cools the cut-in element and drops the platen, at which time, the machine will go into the defrost position.

3. The platen on the cut-in side remains in the "Freeze," flange at the top of the slot, position. This can be caused by tampering with the control, the cut-in bulb is not attached tightly to the suction line, or the unit is very low on charge.

If the unit is very low on charge, the suction line will not cool the cut-in bulb enough to lower the platen and switch control to the left hand element. If this happens, the machine will continue to run even after the evaporator has overflowed.

4. The cut-in platen remains in the bottom of the slot. This can be caused by tampering with the control, the cut-in setting being set too high, the power element losing its charge, or the control bulb being separated from the suction line, and consequently not warming up on the defrost cycle. The unit will remain in defrost regardless of the position of the cut-out platen.

The cut-out setting of this control is 38°. This setting is sealed at the factory. The cut-in setting is 55° to 57°. This cut-in setting can be adjusted in order to increase or decrease the over-run time.

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## Residential Air Conditioning

# Lower Room Air Humidities Achieved from Cycling Blower Than with Continuous Blower Operation

Report on Warm Air Heating Research Residence No. 2, University of Illinois

PHILADELPHIA—"Cycling the blower with the compressor produced lower room air humidities than did continuous blower operation."

That was one of the conclusions of tests on a residential air conditioning system cited in a technical paper presented before the American Society of Heating & Air-Conditioning Engineers at its 61st annual meeting here.

"Even during periods of low outdoor humidity, the amount of water condensed from the air circulated through the cooling unit was greater with cyclic blower operation than it was in more humid weather with continuous blower operation," declared the authors of the paper—H. T. Gilkey, W. S. Stoecker, and Prof. S. Konzo, all of the University of Illinois.

This was another report on the Warm Air Heating Research Residence No. 2 project sponsored jointly by the Engineering Experi-

ment Station of the university and the National Warm Air Heating & Air Conditioning Association.

"Although cycling the blower with the compressor would seem to be desirable from the standpoint of lower indoor humidity, the possibility of discomfort due to lack of air circulation when the blower is not operating must be considered," the authors cautioned.

Title of the paper was "Effects of Weather Conditions on Cooling Unit Operation in a Residence."

House under test was of one-story frame construction with full basement and a large amount of glass exposure. A 2-hp. condensing unit supplied the refrigeration for summer cooling. Duct system, however, had been designed for winter heating only. Although the house was completely furnished, it was not occupied during the tests, which were run off during the summers of 1952 and 1953.

High side-wall registers located in the interior walls of the rooms

are a feature of the house, and the total air flow rate was approximately 800 c.f.m.

"Actual capacity of the cooling unit," the authors stated, "was found to be approximately 21,700 B.t.u. per hour, an increase of 7% over that experienced with an air flow rate of 600 c.f.m. in an earlier investigation."

Going into more detail on cycling vs. continuous blower operation, the authors comment:

"Although the most common method of blower operation has been to operate the blower continuously, the suggestion has been made that better humidity control might be achieved if the blower were cycled with the compressor.

### Condensed Moisture Will Not Be Re-Evaporated

"The underlying theory is that if the blower ceases to operate

when the compressor stops, the moisture condensed on the cooling coil will not be re-evaporated. The humidity of the room air would not be increased by this re-evaporation, as it would when the blower is operated continuously.

"The data shown . . . for cyclic blower operation indicated that on a hot day the indoor humidity ratio was lower than on a cooler day," the authors said. "This may only be accounted for by the longer operating time of the compressor on a hot day, with the consequent larger condensation of moisture, and the absence of re-evaporation from the wet coils during periods when the compressor and blower were not operating.

"The difference between the curve representing continuous blower operation and that for cyclic blower operation is sufficiently large that it cannot be attributed merely to differences in weather conditions during the two studies," the authors believe.

### 'Extreme Variability' Cited

As for the title subject of the paper—effect of weather conditions—the authors arrived at little that was definitive other than that there has been "extreme variability" in summer weather.

"Estimates of fuel consumption for the heating season based on the mean value of the degree days can be made with some assurance that the estimates will be reasonable for at least three years out of four," the authors point out.

"For summer cooling, however, where the indices of weather severity can vary as much as 100% or more from one season to the next, some question exists whether the mean value for a period of years will be entirely satisfactory.

"The suggestion is offered that a statistical analysis should be made and that any value finally selected for a given locality should not be exceeded more often than one summer out of four.

### No Agreement on Index

"No such analysis has been made for any locality, primarily because no agreement has been reached on the index to be used for evaluating the summer weather," the authors state.

"Excellent correlation was found between hours of compressor operation per day and the number of degree hours above 65° F.," they declared.

"From a practical standpoint, however, this criterion is not as good an index as degree days based on mean daily temperature. In addition, there was good correlation between hours of operation and mean daily temperature. The datum mean daily temperature above which compressor operation occurred was 65° F.

"The base temperature for cooling degree days must be determined from investigation of many residences, however, and it may vary depending upon the locality and type of residence," the authors conclude.

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| <input type="checkbox"/> Custom production methods that mean flexibility in field application.                                 | <input type="checkbox"/> A "superiority kit" that demonstrates engineering superiority, helps you sell.       |
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## The KEY to AIR CONDITIONING

by James J. LaSalvia

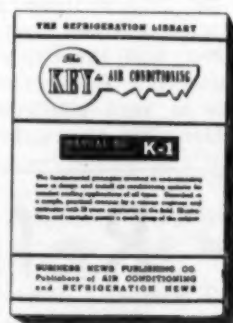
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# Why 'Market Specialist's' Operation Proves Profitable

1. Sells Goodwill
2. Secures Merchandise Economically
3. Plans Installations Carefully
4. Satisfies with Service
5. Keeps Used Equipment Moving
6. Simplifies Accounting

NEW YORK CITY—Six operating principles that lead to a profitable operation were outlined for members of the National Commercial Refrigerator Sales Association recently by Donald D. Denny, president of Modern Market Fixtures, Inc. of Dayton, Ohio.

These principles, employed by Denny in his own business, are:

1. We try to promote more sales by selling ideas and goodwill.
2. We secure the merchandise as economically as possible.
3. We plan the installation carefully.
4. We satisfy the customer with service.
5. We try to keep used equipment moving.
6. We simplify our accounting to get what we need for what we can afford to pay.

Denny explained how he uses these principles at the eighth annual NCRSA convention here. He said:

"To me, the most important operating practice is to establish a sound sales policy and have sufficient salesmen to satisfactorily cover your operating territory."

He explained that his firm specializes in market equipment. It is

important, he emphasized, to be a specialist in your field and to be accepted by the trade as a specialist.

"Therefore," he said, "our salesmen must be specialists. Those of our salesmen who have enough experience sell our full line and do their own store planning. A new salesman is taught a single specific item until he masters it. Then he is taught another."

"These things, plus a very liberal service warranty policy, which completely protects the customer and offers him service 24 hours per day—seven days per week, all tend to establish our company as 'The Place To Buy With Confidence.'"

## Fundamentals of Salesmanship

"I started in this business in 1938 as a refrigeration serviceman working for one of the best salesmen I have ever known. He sold by using all the fundamentals of salesmanship. I gradually started selling by gaining customer's confidence that they would get a square deal."

"So when seven years ago our present company was formed, it was with the thought in mind that

if our customers were treated as we would like to be treated, pretty soon they would come to us. This has proved to be true."

"Now I don't mean to say that we sit back waiting for our customers to come to us, but our salesmen have very little time to canvas due to a constant source of prospects coming to us from satisfied customers."

## Importance of Store Planning

"One thing that I feel is most important in our business today is an efficient store planning department. I feel it is a duty which we must perform for the market operators if we wish to keep the wholesale grocers and others out of our business."

"Our store planning department is so set up that a layout is never presented to a customer by the salesmen who made the plan without first having been constructively criticized by our other men. This often leads to changes being made before it goes out. Thus, when it is presented to a customer, it is the best we, as a group, can offer."

"We never take out two or three drawings and let him take his

pick. We feel that we should be able to tell him why our layout is right for him, why he should have so many feet of frozen food, so many feet of dairy, etc., and why his store should be stocked as we show it for a more profitable operation."

"Our whole theme of selling today has changed radically from the days of selling a meat case or a cooler based on its particular features of construction, durability, etc. With the changes in merchandising methods, in the retail store, we too have changed until now we are selling ideas for better merchandising, more profit, and better stores."

## Sell Service

"We are selling a service to our customers. When we have successfully sold him this idea, the equipment order is the natural sequence."

"Securing the merchandise. This, of course, depends on the size of the operation. In many instances the equipment is in warehouse stock. In other instances it must be ordered from the manufacturer. Money can be saved by having the equipment arrive at the proper time to save expensive handling and warehousing."

"This is a very important part of our operation because improper inventories greatly affect the profit. In my opinion if the equipment is readily available and delivery time is not too great, inventories should be kept at a minimum due to cost of handling, warehousing, floor planning, insurance, obsolescence due to changes in models, taxes, etc."

## Full Understanding Needed

"The installation. This must be well planned in advance. Full information must be passed on to the service manager, so that he fully understands the installation as well as the promises made by the salesman to the customer."

"In case a layout has been made, he should be given a copy and have it carefully explained to him. He must understand what other equipment he must move as part of the job and what he is to charge the customer for as extras. He must be impressed with the fact that he at all times strives to maintain goodwill between the customer and the salesman."

"Satisfying the customer with service is very important in our operation. We give our customers

a full year warranty on new equipment and six months on used.

"He is advised how he can reach us day or night and in addition, a sticker is posted near the condensing unit to remind him of our day and night phone numbers."

"At the time of installation, a card notifying the customer of warranty expiration date is filled out and filed—these are pulled from the file 11 months after installation and mailed. Thus, the customer is advised that within 30 days his warranty expires and after that date he will be expected to pay for service."

"Since our business is principally sales, we do not expect to make a profit on service. Our servicemen are not paid any commission on parts sold which in my mind would influence them to install as many new parts as possible."

"This would be good for the profit in the service department—but it taking an unfair advantage of our customers who trust us and could cost us a sale later on. We do pay our servicemen for any tips they bring in which result in sales. This causes them to keep alert for new sales possibilities."

## Service Is Cash Operation

"We were experiencing heavy accounts receivable in service work until about a year ago when we changed our policy to strictly cash for service with the exception of a few choice accounts. This was accomplished by mailing a card to each of our customers advising them of the change."

"We also had each of our servicemen carry one of the cards and instructed them to collect on all service. This proved very successful to us by reducing our accounts receivable and practically eliminated the necessity of adjusting invoices, which had been happening frequently in the past when a customer was paying accounts 30 to 60 days old."

## Disposition of Used Equipment

"Disposition of used equipment: We handle it in this manner—if it has no sales value it is scrapped. If we bring it in to our warehouse where we also display saleable used equipment, it is tagged and put in line for reconditioning based on its sales possibilities."

"Used equipment is worth no more than the market allows. This is one item that the old law of supply and demand still controls. The items in demand naturally get preference in reconditioning."

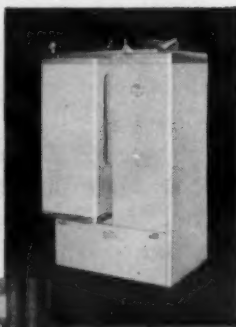
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amounts of the profit lie in the trade-ins. So in order to recover this quickly and keep our costs of handling down as well as our inventories, we pay our salesmen a higher commission rate on used equipment. We also offer better terms to the customer as an added inducement. A warehouse full of used equipment means profit tied up.

"Statements are sent out the first of each month, from our aged accounts receivable, aging of accounts permits us to know quickly which ones must be followed. We also carry a ledger on accounts payable.

<b>Miscellaneous Expense:</b>	
Miscellaneous	
Discounts Allowed	
Interest Expense	
<b>Total</b>	

**3** out of **5** servicemen prefer **RANCO**

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Model 408  
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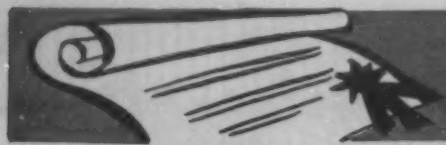
Pressure Range: 0 to 100 PSI  
Set Point: 50 PSI  
Differential: 10 PSI  
Adjustable: Yes  
Factory Set: No  
Material: Brass  
Finish: Polished  
Weight: 1.5 lbs.  
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## Government Contracts

### PROCUREMENT INFORMATION

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Ordnance Ammunition Center, Joliet, Ill.; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices.

### DEPARTMENT OF DEFENSE

Description	Quantity	Reference No.	App. Bid Date
Galveston District, Corps of Engineers, P.O. Box 1229, Galveston, Texas			
Construction of post exchange and 350-man theater including utilities, Foster AFB, Victoria, Tex. Const. of permanent type masonry theater w/capacity of 350 men and air condition outside utilities sidewalks and parking areas are included. Const. of permanent type PX approx 9800 sq. ft. in area a/masonry exterior walls and wood frame partitions and roof outside utilities sidewalks and parking area are included.	Job	ENG-41-2243 55-47-B	14 Apr 55
Officer in Charge, Navy Purchasing Office, Naval Supply Center, Norfolk, Virginia			
Range, electric, with single oven three storage drawers three surface units, equal to model 5010 Estate Heatrola Div. Noma Electric Corp.	60 ea.	192-B	21 Mar 55
Refrigerators, electric, approx 8 cu. ft. total capacity combination type. Equal to model NH8HS Mfg. by International General Electric Co., New York, N. Y.	60 ea.	193-B	18 Mar 55
Corps of Engineers, Albuquerque District, Albuquerque, New Mexico			
Construction of cold storage building, Reese Air Force Base, Lubbock, Tex.	Job	(SER. NO. ENG-29-005-55-67B)	30 Mar 55
Construction of cold storage building and technical laboratory building, Clovis AFB, Clovis, N. M.	Job	ENG-29-005 55-89-B	13 Apr 55
Commander, Warner Robins Air Material Area, Robins Air Force Base, Georgia. Attn: CLM Director, Proc. & Production. Invitation for Bid (B) and Requests for Proposal (Q) are distributed to firms listed in the Bidders List maintained by the above activity. A complete bid set is available for EXAMINATION ONLY by prospective bidders at the Air Regional Offices located in the local trading area of the above activity.			

Air conditioning officers club, bldg 1411 Robins AFB, Ga. Includes carpentry, concrete, electrical work.

### GENERAL SERVICES ADMINISTRATION

General Services Administration, Business Service Center, 7th and D Sts., S.W., Washington, D. C.  
Cooling tower 60-ton nominal cap. 1 ea. 4H-58588-R 29 Mar 55  
Air conditioner 7 1/2 ton. 1 ea. 4H-58614-R 29 Mar 55  
General Services Administration, Business Service Center, 1114 Commerce, Dallas, Texas  
Air conditioner, window type 60-A-372 amend 1. 63 ea. DA-42393 22 Mar 55  
General Services Administration, Business Service Center, 1900 Federal Office Bldg., Region 6, Kansas City, Missouri  
Air conditioning and wiring St. Louis, Mo. Job C. R. 1337 24 Mar 55  
Custom House (old).

### U. S. DEPARTMENT OF COMMERCE

Chief Procurement Branch, Civil Aeronautics Administration, 5651 W. Manchester Ave., Los Angeles 45, California  
Cooler, room air conditioner, window type, Federal specification 00-A-372 type 1. 5 ea. 4-55-162 17 Mar 55

### U. S. POST OFFICE DEPARTMENT

Chief of Procurement, Bureau of Facilities, Post Office Dept., Washington, D. C.  
Air conditioning unit 7 1/2 ton, water cooled, self-contained type, complete in all respects to operate on 208 volts, 3 phase 60 cycle current. Unit shall be equipped for duct delivery of air without plenum chamber. Water regulating valve not required. Deliver to: Post Office, N. Capitol and Mass. Ave., Washington, D. C. 1 ea. 1571 21 Mar 55

### U. S. ATOMIC ENERGY COMMISSION

U. S. Atomic Energy Commission, Procurement and Traffic Branch, New York Operations Office, P.O. Box 30, Ansonia Station, New York 45, N. Y.  
Furnish and install one 2-ton console (air cooled), window type air conditioning unit and system for 5th Floor Conference Room. 70 Columbus Ave., New York, N. Y. Job 301-55-45 14 Mar 55

### CONTRACTS AWARDED THROUGH MARCH 7

Shelby Air Force Depot, Wilkins AF Station, Shelby, Ohio  
Item 1—8200-030375 air conditioner, trailer mounted: 787 ea. Item 1A—spare parts for Item 1: 394 ea. Based on RFP-3087 PR-596598—\$1,444,881 in lieu of (Increase).—Racony Corp., Reco Products Div., 150 Nassau St., New York 38, N. Y.

## International G-E Announces Reorganization Into Six Major Depts.

NEW YORK CITY — W. R. Herod, vice president of General Electric Co. and president and general manager of International General Electric Co., a division of G-E, has announced a reorganization of IGE, which was effective March 1.

The organization will consist of six major departments. The overseas operations department under G. S. Eveleth, Jr., manager, will be responsible for the conduct of General Electric's operations overseas through branches and subsidiary companies engaged in manufacturing and selling. It will also administer investments in these undertakings.

A producer goods export department under C. V. Schelke, manager, will be responsible for the export sales of electrical apparatus products and other heavy equipment manufactured by General Electric in the United States.

A consumer goods export department under E. F. Peterson, manager, will be correspondingly responsible for export sales of General Electric and Hotpoint appliances, electronics, lamps, X-ray, and merchandise products.

Other departments of the new organization will be the technical department, for the time being under C. V. Schelke, acting manager, which will administer licensing and technical interchanges; the financial department under R. E. Whitmyer, manager-finance; and the legal department under J. A. Evans, counsel.

## Blazer Named Overseas Representative for Patterson-Kelley Co.

E. STROUDSBURG, Pa. — The Patterson-Kelley Co., Inc. announces the appointment of M. Blazer and Son of Passaic, N. J. as the exclusive overseas representative for P-K's complete line of air conditioning and refrigeration equipment.

The line includes dry expansion chillers, flooded chillers, refrigerant condensers, slug eliminators, balance loaders, and dry expansion storage coolers.

## Carl Harris To Head Sales For Havens Cooling Towers

KANSAS CITY, Mo. — Appointment of Carl C. Harris as sales manager for Havens Cooling Towers, a division of Havens Structural Steel Co., Kansas City, has been announced by Harry L. Havens, president.

Harris has had many years' experience in sales, advertising, and merchandising of similar lines, it was pointed out.

## 9 Field Force Transfers Announced by Honeywell

MINNEAPOLIS — Appointment of new managers in five cities and reassignment of four key sales engineers is announced by Gavin S. Younkin, general sales manager of Minneapolis-Honeywell Regulator Co.

F. M. Thuney, former Washington, D. C. branch manager, has been promoted to manager of the contract division in Honeywell's Industrial Div. plant at Philadelphia, while J. W. Bowers, former Grand Rapids, Mich. manager, has been named to head a newly-created department of service and repair of controls for commercial establishments. He will make his headquarters in Minneapolis.

Harry E. Grossman replaces Thuney as manager of Honeywell's Washington branch and Joseph H. Nixon will head the firm's Grand Rapids district office. Grossman was formerly manager of the com-

## Allen Named District Sales Mgr. for Typhoon

BROOKLYN — Robert J. Allen has been appointed a district sales manager for the Typhoon Air Conditioning Co., Inc.



R. J. Allen

Most recently representing Lipman Refrigeration, Allen brings to his new assignment considerable experience in refrigeration, air conditioning, and sales engineering. He will represent the Ty-

phoon line of packaged commercial and residential air conditioning equipment in an area covering Maryland, Delaware, Virginia, the District of Columbia, and parts of Pennsylvania and New Jersey. His headquarters are in Philadelphia.

## Hajoca Reports Sales of \$36,660,365 for 1954

PHILADELPHIA — Hajoca Corp., distributor of air conditioning, refrigeration, plumbing, heating, and industrial supplies, has reported that net sales in 1954 totaled \$36,660,365, compared with \$38,859,832 in 1953.

Earnings last year amounted to \$234,023, or \$1.40 a share, against \$376,068, or \$2.25 a share in the previous year.

In the annual report, W. A. Brecht, president, said the company has set its 1955 sales budget "at 8% greater than 1954." He added that Hajoca also has "placed particular emphasis on the profit motive."

## Wentworth Heads Central Region for Worthington

HARRISON, N. J. — Clarence S. Wentworth, manager of Worthington Corp.'s Detroit district office, has been appointed central region sales manager, according to Thomas J. Kehane, vice president in charge of sales.

Wentworth will succeed William A. Meiter, who has been promoted to general sales manager.

After graduating from Northeastern university in 1922 with a BME degree, Wentworth started with Worthington as a service engineer in the Los Angeles district office. From 1929 to 1936 he was a general line salesman in the St. Louis office.

Then followed 12 years as regional manager, railroad division, in St. Louis and Chicago, interrupted by three years' service in the Navy during World War II. In 1948 he became a general line salesman in the Chicago office, and in 1950 was made district manager of the Detroit office.

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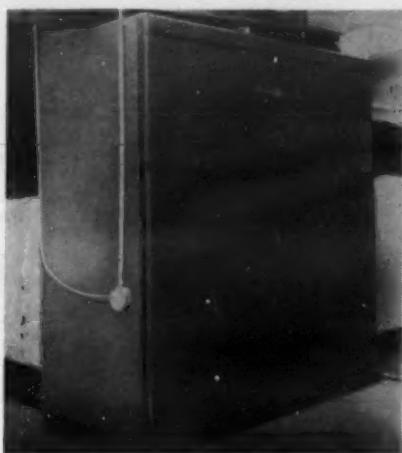
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MANUFACTURERS OF  
Refrigerating Equipment  
Air Control Equipment  
Automatic Vending Machines  
Malleable & Grey Iron Castings





TYPICAL OFFICE showing air outlets in Mutual Savings Life Insurance Co. building.



ONE OF 13 "Weathertron" units used to heat and cool the six stories and basement of the building.

## AIR CONDITIONING

### St. Anthony Hospital Installs Variety of Refrigerated Equipment

COLUMBUS, Ohio — Refrigeration equipment serving the new addition to St. Anthony hospital includes walk-in refrigerators, freezer, and ice cube makers.

There is a separate refrigerated room for vegetables, meat, dairy items, and meat preparation, and also a large freezer. The layout was designed by Louis Karlsberger, architect on the project.

Automatic ice makers are located on each floor.

The York refrigeration equipment used was supplied by Columbus Refrigeration Co., distributor for York Corp. products in the central Ohio area.

### 40 More Cool Rooms

GAINESVILLE, Fla.—A \$250,000 air conditioned motel with 40 rooms will be erected on U. S. Highway 441, according to Harold E. Peper of Washington, D. C., a representative of the owners.

### Du Pont Publishes Air Conditioning Guide

WILMINGTON, Dela. — Helpful tips on ways to apply economical and efficient air conditioning to more than a score of different types of buildings, ranging from homes to manufacturing plants and retail establishments, are outlined in a new Du Pont booklet.

Entitled "Guideposts to Better Air Conditioning Installations," the 36-page booklet (A-8726) is a compilation of semi-technical articles by outstanding engineering consultants.

Separate sections are devoted to comfort cooling of living quarters, including hotels and apartment houses; public and commercial buildings, hospitals, and restaurants; manufacturing and warehousing plants; and retail shopping centers as well as individual stores.

Another section, of particular interest to architects, contains suggestions on the most practical location of air conditioning equipment from a building design standpoint.

## 'Weathertrons' Heat, Cool Decatur, Ala. Bldg.

BLOOMFIELD, N. J.—What is said to be the largest office building in the world to be completely air conditioned by packaged heat pumps has been opened in Decatur, Ala., according to General Electric Co.

All six stories and the basement of Mutual Savings Life Insurance Co. there are heated and cooled by 13 "Weathertrons"—General Electric's name for its packaged air-to-air heat pump.

Rowland J. Compton, G-E Weathertron dealer, made the installation of 5-ton units. Compton is a dealer of the Birmingham factory branch of the G-E Weathertron Dept.

Because there is more than one

tenant on the first floor, three Weathertrons were installed to condition this area and the basement, using two zones for the first floor and one for the basement. Ducts bring return air from the first floor to the basement units.

Air from floors two to six returns through doors and hallways without the use of ducts. On these upper floors, units were installed with a thermostat control that permits one unit to shut off entirely if only one is needed.

Each floor except the first has a single zone system and is served by a large supply duct running the length of the building. This duct is covered with acoustical tile.

The packaged units are located

near the elevator shaft and the outdoor air ducts extend through the adjacent outside wall.

"An interesting sidelight on the job," G-E said, "is that installation costs were higher than on other systems but an operating cost of approximately \$75 per month was estimated which would more than make up the difference over a period of time."

"The \$75 figure was arrived at after calculations by G-E engineers, the local utility, and Compton, and is largely due to the elimination of the cost of water and the cost of maintenance on a water system."

## OPPORTUNITY

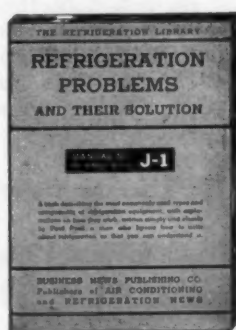
Well-established and rapidly-expanding prime air conditioning manufacturer of residential, commercial and industrial equipment is seeking four District Managers for following areas: northeast, southeast, central and southwest. The men selected must have a good knowledge of the air conditioning business in all phases and be mature in manner and judgment. These are newly-created positions which have developed due to increased business and a long-range expansion program. Positions pay a good salary, incentive and all expenses. Write full details to BOX A5193, Air Conditioning & Refrigeration News. Interviews will be arranged in territories.

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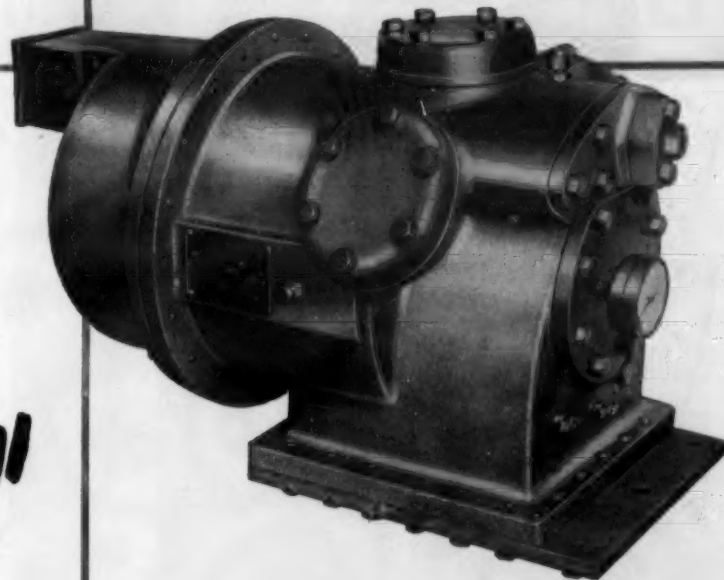
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## ATTENTION:

# "Hearts" for sale

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## Refrigeration Problems and their solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

### Choosing the Compressor Oil (4)

#### MOISTURE IN COMPRESSOR OIL

The old saying "oil and water do not mix" is not strictly true. Oil can absorb a certain amount of moisture—enough to cause trouble in a low-temperature refrigeration system.

Never leave oil standing in an open vessel exposed to air. The oil can, and does absorb some moisture from the air. Surfaces of cans and funnels acquire a film of moisture from the air; so see that they are wiped dry and clean before using them with compressor oil.

The field service engineer will be safer to buy his compressor oil in refinery-sealed cans of comparatively small size. Not often is it advisable for him to buy and stock his compressor oil in larger than 1-gal. cans. Even then he should

replace the cap on the can tightly as soon as he has poured out the amount needed.

Although oil can be bought more cheaply in 55-gal. drums, it is not advisable for the service engineer to stock his oil in such large quantities unless he makes special provisions to keep the oil clean and dry.

One of these provisions is that the oil should be pumped or, better, drained out of the barrel through a spigot. It should never be dipped out, for this may introduce dirt, and it will mean opening the barrel and exposing the oil to moisture in the air. Another provision is that the air that enters the barrel to replace the oil drained out be first passed through a drier filled with a good desiccant such as activated alumina, silica gel, or calcium sulphate.

Oil for refrigeration compressors in refinery-sealed cans has been dried, so the service engineer need not worry about the dryness of an oil from a reputable refiner. His chief concern should be in the

care that he employs in keeping the oil dry after he breaks the seal on the can.

#### DIELECTRIC STRENGTH OF AN OIL

A clean, dry, highly refined oil is not a conductor of electricity. In fact it can be considered as an electrical insulation. However, even an electrical insulation can be broken down and punctured if the voltage is high enough.

The ability of an electric insulation to withstand a high voltage breaking through it is called the dielectric strength of the insulation. Moisture can affect the dielectric strength of an insulation; if it is wet or even only damp, its dielectric strength will be much lower than if it is dry.

This principle is used in testing oils for dryness and freedom from foreign particles. Two electrodes,  $\frac{1}{16}$  of an inch apart, are submerged in the oil. High voltage is applied to these electrodes.

If, with a voltage of 25,000 volts or more, the oil is not "punctured," and thus prevents the passage of current between the electrodes, the oil has a dielectric strength of at least 25,000 volts, or 25 kilovolts, abbreviated 25 KV. This is considered the minimum dielectric strength for a refrigeration compressor oil.

Some oil specifications may include maximum moisture content by weight; such as "moisture—not more than .01% by weight."

#### STEAM EMULSION NUMBER

Some oils tend to absorb moisture more readily than others. A good refrigeration oil should not absorb moisture readily.

To test this, steam is blown into the oil and then the oil-steam mixture is timed to see how quickly the oil and water separate. If the oil is suitable for refrigeration compressors, the separation should not take longer than a minute to a minute and one half. The time in seconds (60 to 90) is called the Steam Emulsion number.

#### FLASH POINT AND FIRE POINT

Flash and fire points of an oil are sometimes referred to and included in oil specifications. The oil

to be tested is put in a vessel and heated, and a small flame is passed over the surface of the oil. The oil temperature at which little flashes of fire appear on the surface of the oil is called the Flash Point. If the oil temperature is raised it will finally catch fire from the flame, and burn continuously. The oil temperature at which this occurs is called the Fire Point.

If the oil is a "straight run" oil; that is, all the oil is of the same viscosity, and the same proportion of volatile constituents, the Flash Point should be above 300° F. and the Fire Point 20 or 30° higher. If the oil is a "blend" of a high grade oil with some lower grade oils, the fire and flash points will be low.

#### MISCELLANEOUS OIL CHARACTERISTICS

There are numerous other oil characteristics that are sometimes referred to in oil specifications. Some of them are quite important, but of little more than academic interest to the service engineer.

As a matter of information and curiosity, some of these are mentioned as follows:

**Sligh Oxidation Number.** This is a measure of how easily the oil is oxidized. An oil that is readily oxidized is more likely to form sludges, than an oil that has a high Sligh Oxidation Number. Some oil specifications include 10 as a maximum Sligh Oxidation Number.

**Neutralization Number.** This is a measure of whether the oil is relatively free of mineral acids that may cause the oil to react with materials of which the system is made.

**Copper Strip Test.** A piece of clean copper is immersed in the oil, which is heated to 212° F. After three hours, the copper strip should show little evidence of blackening or pitting. If it does, the presence of an excessive amount of sulphur in the oil is indicated, and shows that the oil has not been adequately treated to remove the sulphur that is used in the refining of the oil; or it may indicate the presence of additives containing an excessive amount of sulphur. Some oil specifications require that the oil shall contain no more than .1% to .15% sulphur by weight.

**Gravity.** The gravity of the oil is determined in much the same way as the gravity of a brine, or of a battery solution is obtained; this is, by the use of a hydrometer.

The gravity of a compressor oil may be an indication of the type of crude from which the oil was refined, but has no significance to the service engineer as to the quality of the oil or its suitability as a refrigeration oil.

#### REVIEW

1. If possible, use the oil furnished or specified by the manufacturer of the compressor. If the exact oil cannot be obtained, or, as in the case of "orphan" compressors, if the compressor manufacturer's oil specifications cannot be determined, use a high grade oil of the specifications indicated in this series of articles, depending upon the refrigerant used, evaporator temperature, and type of compressor.

2. Use only first quality oil. The amount of oil added to the average compressor does not amount to much in dollars and cents. The difference in cost between a first quality oil and one "just as good," even for a compressor refill, may be very small compared to the total cost of the job, and the extra cost will be well justified in freedom from future trouble and possible expense.

3. Keep a stock on hand of a few types and viscosities of oils, to meet the requirements of the types of equipment you regularly service or are likely to be called upon to service.

4. Keep this stock properly marked both in your storeroom and in your truck. Preferably, buy your oil in refinery-sealed cans of comparatively small capacity. Keep cans closed, and do not expose oil to moisture or dirt in the air or on funnels or other containers.

5. Do not mix oils and do not put used oil, however clean it may appear, in your stock, as it may be used, by mistake, as new, dry, clean oil.

6. Remember that any oil in the evaporator, manifolds, traps, lines, or other parts of the system, come from the compressor crankcase, and that the compressor lacks oil in just the amount that is elsewhere in the system. Check crankcase oil level at least once and preferable twice, after a new installation is made, and add oil to the crankcase to make up for that lost by it to the system.



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This year, capacities of some models have been increased as much as ten per cent! DUAL water controls (finger tip plus toe) are standard on most pressure-bubbler models, and new DUAL thermostats give double protection against the possibility of accidental freeze-up.

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Combined Ammonia Units in 3 Sizes

Large 4-Cylinder Compressors—Up to 700 Hp.

Small Ammonia & Freon-22 Compressors

Booster Compressors for Low Temperatures

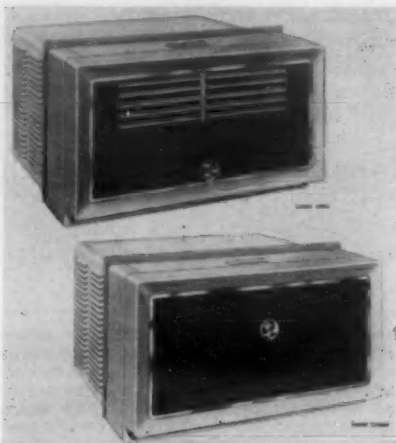
"ECLIPSE" Low Pressure Units in 5 Sizes

Large 2-Cyl. Ammonia Compressors





KELVINATOR MODEL RAC-85C room air conditioner designed for casement window installations.



"FURNITURE-FASHIONED" window air conditioners showing unit open (above) and leather style front in place.

## Kelvinator 'Furniture-Type' Room Units--

(Concluded from Page 1, Col. 3) room. Controls and selector chart are on top of the cabinet, out of sight under the filter door.

Models 85D and 105D have automatic pushbutton controls, automatic thermostat, two-speed fan motor, and a heater to take the chill off the air in cool weather.

The new model RAC-85C is designed to fit any standard vertical casement window, and with an adapter kit, may be installed entirely inside the room so the window can be fully closed.

Automatic pushbutton controls are out of sight behind a door on the front. Two-speed fan motor makes it possible to vary the rate of cooling capacity to meet individual needs. Adjustable air directional louvers assure proper air circulation without drafts. Rich sandalwood finish blends with any decor.

The distinctive open-front

models RAC-155D and 205D, 1½ and 2 hp., have been designed especially for users who operate their air conditioners almost continuously.

Controls and selector chart are under the filter access door and out of sight. Both models have automatic pushbutton controls and automatic thermostats. The three air directors can be rotated in a 360° circle for high velocity draft-free air circulation.

Model RAC-205D has two 1-hp. compressors—dual cooling systems that operate together in hottest weather or one system only in milder weather.

The ½-hp. model RAC-65 has the same design and color styling that characterize the deluxe 155D and 205D. A control knob on the front of the cabinet regulates the cooling capacity. Air director can be rotated in a 360° circle for high velocity, draft-free air circulation.

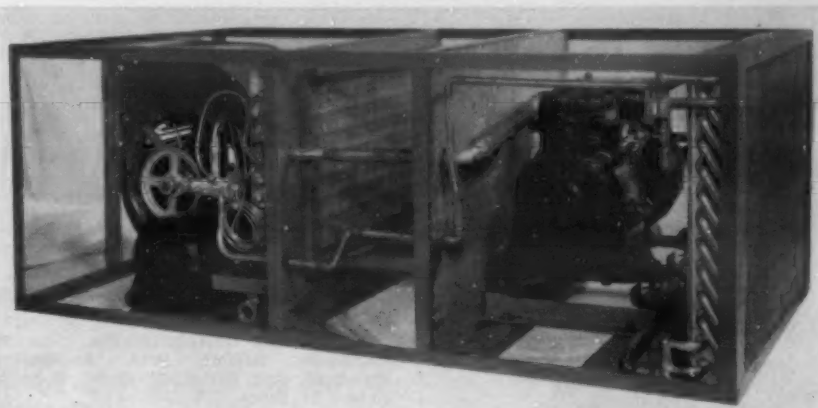
## Restaurant Show--

(Concluded from Page 1, Col. 2) frigeration or air conditioning equipment for the restaurant field.

A new feature of the exposition this year will be a "Decorating and Furnishings Center" in the north wing of the Pier. Here four model restaurants will be set up, each designed and decorated by members of the American Institute of Decorators, who state that they will be the last word in restaurant design and efficiency.

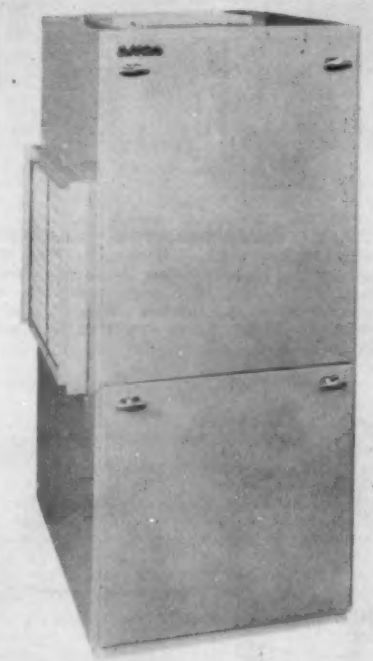
Occupying 4,000 sq. ft. of space, the center will display the latest in equipment and materials for restaurant remodeling and decorating.

Fourteen "Shop Talk" sessions for the exchange of ideas on various phases of restaurant operation will be a feature of the NRA convention.



AIR-COOL-A-MATIC horizontal unit (above).

VERTICAL air-cooled unit is self-contained.



## Automatic Firing--

(Concluded from Page 1, Col. 2) used with any existing warm air system, using the already installed warm air ducts. The unit is shipped charged with "Freon-22."

The 2-ton horizontal unit measures 21¼ in. high, 29¼ in. wide, and 52¼ in. long. The dimensions of the vertical unit were not given.

In the 3-ton size, the horizontal model is 26¼ in. high, 35¼ in. wide, and 59½ in. long. The vertical unit is 58½ in. high, 25¾ in. wide, and 35¼ in. deep.

According to Strauss, an over-size Copeland compressor assures efficient operation as well as maximum cooling capacity even at temperatures as high as 115° F.

## Freezer Sales--

(Concluded from Page 1, Col. 2) 48%. But sales to other foreign countries rose by 23%.

Upright freezers grabbed a larger share of total business during the year, the NEMA figures indicate. In fact, the 242,117 up-rights sold in 1954 was 8% more than were sold in 1953. They represented 36% of total freezer sales as compared with 28% in 1953. Sales of chest models dropped 25% during 1954.

Most popular size freezers continued to be those in the 12.5 to 17.4-cu. ft. category, which accounted for 42% of the total freezers sold. The 11 and 12-cu. ft. classification and the 17.5 to 21.4-cu. ft. class were second and third, respectively. (See table on page 12).

## Goodwill Builder

### Keco Offers Cooling for Churches, Civic Meetings

CINCINNATI—Keco Industries, Inc. here, manufacturer of portable air conditioning and refrigeration equipment, has announced a community service it will make available this summer to churches, clubs, and civic groups.

Keco said it will make available two trailer-mounted, gasoline-engine-driven air conditioners for cooling meeting halls, parish houses, tent meetings, and the like, and will make no charge for the service except the cost of the operator and fuel.

Each of these air conditioners has a capacity of 11 tons of refrigeration and either one is capable of cooling a good-sized room.

## Supermarket Air Conditioned

NORTH CHARLESTON, S. C.—Completely air conditioned, the new Edens Super Market at 3676 Dorchester Rd., North Charleston, held its grand opening recently.

Hill refrigeration equipment, including complete service and self-service departments, has been installed in the new unit.

## Cincinnati '54 Room Unit Sales Jump 40% over '53

CINCINNATI—Room air conditioner volume increased 40% during 1954 over 1953, the Cincinnati Gas & Electric Co. reported recently. Dollar volume rose 18.9% while the average retail price rose from \$340 to \$346, the utility added.

In other comparisons between 1954 and 1953, the utility reported that refrigerator sales, both volume and dollar wise were just short of 1953 figures and the average unit price remained the same.

Freezer sales were down 4.7% in unit volume, while dollar volume dropped 7%. Average unit price slipped from \$463 to \$452.

Unit sales of electric ranges rose 12.2% while dollar volume went up 20%. Average retail price jumped from \$304.97 to \$326.33.

For automatic washers, both dollar and unit sales moved up 14% as average unit price remained the same.

## Detroit RSES To See Color Film at Meeting March 17

DETROIT—Kelvinator Div. of American Motors Corp. will show its color film "Of This We Are Proud" and an animated color film on "Magic Cycle," its automatic defrosting household refrigerator, to the Greater Detroit chapter of the Refrigeration Service Engineers Society March 17.

The meeting is scheduled for 8 p.m. at the UAW-CIO Hall at 20424 John R. Kelvinator will display for the servicemen its new water cooler and a Magic Cycle demonstrator.

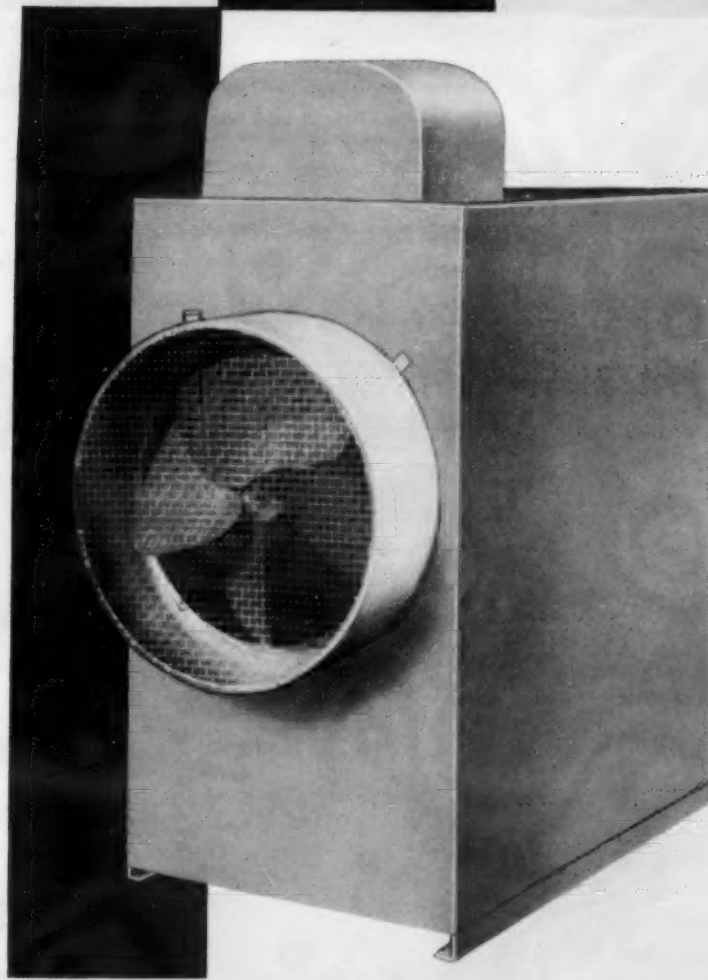
## New Wis. Firm Formed

MILWAUKEE—Air Conditioning Corp. of Wisconsin has been formed here, with an authorized capital stock of 1,250 shares of common of no par value.

Incorporation papers were signed by Solomon Seidel and George Blecker, the latter having been named the registered agent for the corporation at 2831 W. Lisbon Ave., Milwaukee.

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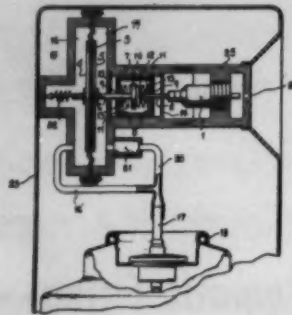
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Saint Louis 10, Missouri



## PATENTS Week of November 30 (Continued)

2,895,766. **INTERMITTENTLY ACTING FLUID VALVING DEVICE.** Gordon M. Feltz, Montclair, N. J., assignor to Bridgeport Brass Co., Bridgeport, Conn., a corporation of Connecticut. Application March 3, 1953, Serial No. 340,064. 1 Claim. (Cl. 251-13.)



An intermittently acting fluid valving device for fluid under pressure, the device including a fluid valve, a double-acting piston having a back causing the piston to advance when receiving fluid pressure and a front causing the piston to retract when receiving fluid pressure, means for connecting the piston to the valve to close the valve after the piston advances a limited distance and to open the valve after the piston retracts a limited distance, a back chamber enclosing the piston's back, fluid conduit means for connecting the back chamber to said source, a front chamber enclosing the piston's front, fluid conduit means for connecting the front chamber to said source, fluid conduit means for connecting the front chamber to the valve, and means for biasing the piston to retract, the device further including means for reducing the fluid flow through the conduit means for connecting the front chamber to said source, to a slower flow rate than the flow rate through the conduit means for connecting the back chamber to said source, said means for connecting the piston to the valve including a plurality of parts forming

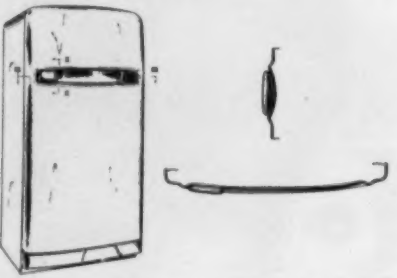
ing a lost-motion connection, a magnet, spring means for interconnecting said magnet with the respective parts of the lost-motion connection, and stationary armatures positioned near to the motion limits of the parts of the lost-motion connection.

### DESIGNS

173,531. **AIR CONDITIONER.** John F. Halbensen, Detroit, Mich. Application March 25, 1954, Serial No. 29,637. Term of patent 14 years. (Cl. D62-4.)



173,536. **REFRIGERATOR CABINET.** Peter Muller-Munk, Pittsburgh, Pa., assignor to Westinghouse Electric Corp., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Dec. 7, 1953, Serial No. 27,967. Term of patent 14 years. (Cl. D67-3.)

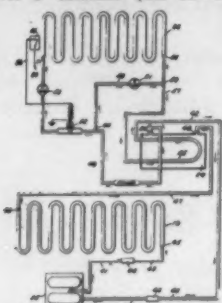


**Editor's Note:** Patents described here have been selected from the "Official Gazette" of the United States Patent Office and offer only a brief summary of each invention. Printed copies of patents, reissued patents, and patent designs may be secured from the Patent Office; patents and reissues are 25¢ each, while designs are furnished at 10¢ each. Copies should be ordered by number and title and a mention of the fact if they are either Designs or Reissues.

Address orders for any of the above to: Commissioner of Patents, Washington 25, D. C.

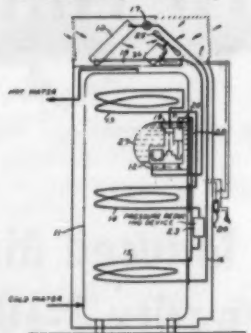
## Week of December 7

2,696,084. **REFRIGERATING APPARATUS FOR MOTOR VEHICLES.** Henry O. Kirkpatrick, Detroit, Mich., assignor, by mesne assignments, to Union Asbestos & Rubber Co., Chicago, Ill., a corporation of Illinois. Application Jan. 31, 1951, Serial No. 206,679. 8 Claims. (Cl. 62-3.)



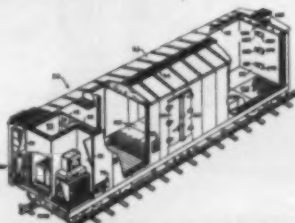
1. A refrigerating apparatus for a motor vehicle comprising a compressor, means forming a driving connection between said compressor and the engine of said vehicle, said driving means being arranged to drive the compressor at a speed proportional to the speed of the engine, a condenser communicating with said compressor, a receiver tank for refrigerant having an inlet and an outlet, means connecting said condenser with the inlet of said receiver tank, an evaporator communicating with the outlet of said receiver tank, a shut off valve in the inlet of the evaporator, means responsive to the temperature adjacent the evaporator to control the shut off valve, a heat exchanger in said receiver tank adapted to exchange heat with the contents of said receiver tank, said heat exchanger being connected at one end to said evaporator and at the other end to said compressor, and valve means adapted to by-pass refrigerant from said receiver outlet to said heat exchanger.

2,696,085. **HEAT PUMP WATER HEATER.** Alonzo W. Huff, York, Pa., assignor to V. C. Patterson & Associates, Inc., York, Pa., a corporation of Pennsylvania. Application March 31, 1953, Serial No. 279,703. 5 Claims. (Cl. 62-4.)



1. A water heater of the heat pump type, comprising in combination: a hot water storage tank; a refrigerant evaporator adapted to absorb heat from the atmosphere; heat transfer means of the type in which refrigerant is circulated, said means being disposed in heat exchange relation to the water in said tank, extending substantially from top to bottom thereof and including during normal operating conditions, a desuperheating stage located adjacent the upper part of said tank, a high temperature condensing stage located substantially at the mid-section of said tank, and a low temperature condensing stage located adjacent the bottom part of said tank said stages being connected in series; means connecting between said high and low temperature stages to maintain a controlled pressure differential therebetween; means connecting said low temperature condensing stage to said evaporator, said means including an expansion device; motor driven refrigerant compression means, said means including at least a low discharge pressure outlet and a high discharge pressure outlet; a common suction inlet for said compression means; means connecting said high discharge pressure outlet to said desuperheating stage; means connecting said low discharge pressure outlet to said low temperature condensing stage; means connecting said evaporator to the suction inlet of said compressor; and means responsive to the temperature of the water in said tank to control the transfer of heat thereto.

2,696,086. **METHOD AND MEANS FOR AIR CONDITIONING.** Frederick M. Jones, Minneapolis, Minn., assignor to The U. S. Thermo Control Co., Minneapolis, Minn., a corporation of Minnesota. Application Jan. 5, 1950, Serial No. 136,952. 32 Claims. (Cl. 62-4.)



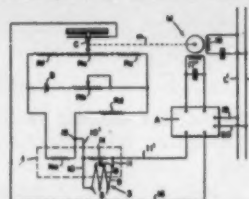
1. In combination with a railway car embodying top, bottom, side and end walls forming an enclosed space, a first pair of wall members within the interior of the car which together with a side wall and an end wall of the car form an enclosure within one corner of the car, a second pair of wall members within the interior of the car which together with

closure, and guide means cooperating with said aperture to direct air under pressure



in the chamber obliquely down on to the closure.

2,696,117. **RADIATION PYROMETER.** Thomas R. Harrison, Wyncote, Pa., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application June 24, 1950, Serial No. 170,200. 18 Claims. (Cl. 73-355.)



1. A radiation sensitive instrument including a temperature equalizing structure, an electrical effect-producing radiation sensitive element having a part arranged within said structure to receive radiant heat from a source of such heat, having a reference part arranged in close thermal contact with said structure, and adapted to produce an electrical effect dependent upon the difference between the temperatures of said parts, an electrical measuring circuit having a pair of output terminals and including said element between said terminals, a first temperature sensitive compensating means having at least a portion electrically connected in circuit with said element between said terminals and having at least a portion arranged in close thermal contact with said structure and electrically responsive to the temperature thereof, said first compensating means being adapted, in response to change in the temperature of said structure from a predetermined low value to a higher value, to introduce between said terminals in additive relation to said electrical effect a first compensating electrical effect which is dependent upon the temperature of said structure and which is substantially equal to the electrical effect which would be produced by said element when said structure is at said predetermined low temperature and said radiation receiving part is exposed to radiation from a source at

(Continued on next page)

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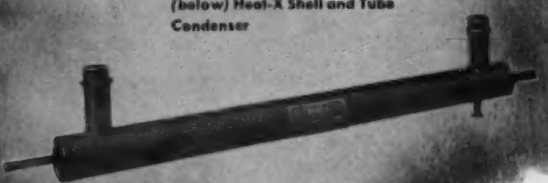
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### POSITIONS WANTED

REFRIGERATION SERVICE & installation engineer, 20 years' experience on all types and makes of commercial refrigeration. Also some industrial air conditioning and some heating. Nine years with present employer, 39 years old, married, 3 children. Desires position with advancement. Best of references and will relocate. BOX A5187, Air Conditioning & Refrigeration News.

CAPABLE ASSUMING executive responsibilities. All phases refrigeration engineering, air-conditioning, manufacturing—long experience well-known companies. Compressor, heat transfer, evaporators, condensers, cabinet, component design experience. Patents these fields. Experience sales engineering. Acquainted with engineering staff many manufacturers. Interested engineering, manufacturing, sales engineering position with financially sound, ambitious organization. Available immediately—Age 40—Salary in five figures. Will relocate. BOX A5195, Air Conditioning & Refrigeration News.

CHIEF OF development. Specialist in heat transfer equipment with post graduate engineering education and 10 years of experience. Past positions include head of research development, and engineering. Seeks suitable position with a medium or large concern. Write BOX A5197, Air Conditioning & Refrigeration News.

SALES ENGINEER—Graduate mechanical engineer with three years' experience in sales and application of heating and cooling products, including baseboard, convectors, heating and cooling convectors, and water chillers. Desires to relocate in East. Age 31, married with family. Write BOX A5198, Air Conditioning & Refrigeration News.

### POSITIONS AVAILABLE

SALES ENGINEER to head up industrial air conditioning and refrigeration department. Location Albany, Troy, Schenectady (New York State) area. Please write stating age and salary requirements to AIRECO, INC., 2315 Second Avenue, Carman, Schenectady, New York.

WANTED—EXPERIENCED refrigeration service mechanic for commercial work in air conditioning and refrigeration. (Frigidaires and Tyler dealer). Year-round work and good pay. Apply ALLIED REFRIGERATION COMPANY, 904 South Erie Highway, Hamilton, Ohio, or phone Hamilton 5-5306.

WANTED—MANUFACTURERS' representatives now contacting commercial refrigeration dealers in the following territories: Chicago, Atlanta, Detroit & Florida. Must be able to sell quality equipment: fast-growing line of special commercial refrigeration items of interest to established refrigeration dealers. Replies confidential. Write: Paul R. Stewart, C. SCHMIDT COMPANY, 1712 John Street, Cincinnati 14, Ohio.

SALES ENGINEER. To design, estimate, layout, and sell Chrysler Airtemp air conditioning equipment. Minimum qualifications: Degree in engineering. Two years' sales engineering. Age 24 to 35, settled. Able to assume responsibility & leadership. Our Corp. is reliable, well established, extensive installation facilities. Retirement trust fund established. Privileged to buy stock when acceptable. We pride ourselves in length of employee service and demand the highest caliber man. If you can qualify, write: LONE STAR AIR CONDITIONING CO., 5607 E. University Blvd., Dallas. Tel: EM-2871—Johnson.

AIR CONDITIONING sales engineers. Would you like a set-up that would reward you with a return of 25% of gross profit on any order you produce for New York City area only? Answer this ad to arrange an appointment with a well advertised firm having an excellent reputation with over 25 years in air conditioning sales, installation and service experience. We require men capable of selling, estimating, and engineering large air conditioning commercial installations. We provide capable assistance in selling—engineering if required. Please address all replies to BOX A5190, Air Conditioning & Refrigeration News.

WANTED—EXPERIENCED refrigeration wholesaler salesman. One who has the background to enable him to teach mechanics how to install and service a simple commercial system after sale. Good starting salary, expenses and bonus plus excellent chance for advancement with well established Philadelphia firm. Write stating experience and qualifications. Our employees know of this ad. BOX A5191, Air Conditioning & Refrigeration News.

SALES MANAGER. Complete charge of air conditioning and refrigeration service operation of large metropolitan York distributor. Eastern Pennsylvania location. Send resume of education and experience and salary desired to BOX A5192, Air Conditioning & Refrigeration News.

WANTED, EXPERIENCED air conditioning and refrigeration sales engineer, with successful sales record and substantial earning capacity. Man qualifying will head this department in old established Massachusetts organization which has been a "York" distributor for many years. This is a permanent position. Give full details, confidential. BOX A5194, Air Conditioning & Refrigeration News.

SALES ENGINEER to represent Kansas distributor selling complete air conditioning line and heating equipment to dealers. Position requires traveling. State experience, age, and availability for interview, in reply. BOX A5196, Air Conditioning & Refrigeration News.

### EQUIPMENT FOR SALE

ATTENTION SERVICEMEN: Save 25 to 50% on your refrigeration parts. Send for our catalog of values today. Here is only one of our money saving offers. 1 1/2" O.D. copper connections x 14 1/2" overall vibration eliminators, \$4.65 each. Lot of 10, \$40.00 each. WALTER W. STARR REFRIGERATION SUPPLIES, 2833 Lincoln Avenue, Chicago 12, Illinois.

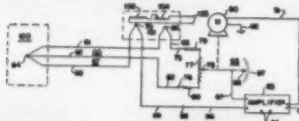


# PATENTS

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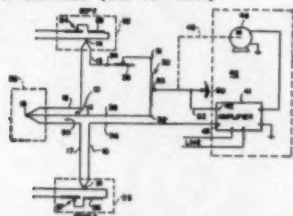
said higher temperature, and a second temperature sensitive compensating means electrically connected in circuit with said element and said connected portion of said first compensating means between said terminals and responsive to the temperature of said structure, said second compensating means being adapted to introduce between said terminals a second compensating electrical effect dependent upon the temperature of said structure and effectively modifying the sensitivity of said element in accordance with changes in the last mentioned temperature.

**2,696,118. TEMPERATURE INDICATING DEVICE.** Edward C. Petry, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Nov. 30, 1950, Serial No. 198,263. 1 Claim. (Cl. 73-359.)



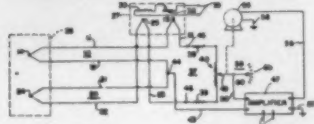
A temperature indicating system comprising three dissimilar metallic elements connected together at a common point and positioned in an atmosphere so as to be subjected to temperature of the atmosphere to be indicated, a first and second element of said three elements combining to form a hot junction of one thermocouple and the third and second of said elements forming a hot junction of a second thermocouple, said first and second thermocouples having similar speeds of response but having differing and non-linear voltage responses, cold junctions for said first and second thermocouples being formed by the extremities of the first and third metallic elements remote from said common point and including connections formed of a material the same as said second metallic element, said cold junctions being held at a substantial constant temperature, a potentiometer including a winding connected at one end to the extremities of the connection of said cold junction of said first thermocouple and connected at its other extremity to the extremity of said second metallic element remote from said common point, an amplifier, wiper means for said potentiometer winding connected to an input terminal of said amplifier, a second input terminal of said amplifier connected to the connection of said cold junction of said second thermocouple, control motor means operatively connected to said wiper means, output terminals for said amplifier, means connecting said output terminals of said amplifier to said control motor to control operation of said control motor, the amplifier responding to the differential of the outputs of said first and second thermocouples and controlling the operation of said control motor means to operate said wiper means of said potentiometer until the input to said amplifier is nulled, and indicator means connected to and operated by said motor means to provide an indication of the temperature of said atmosphere.

**2,696,119. TEMPERATURE INDICATING APPARATUS.** Ennis E. Jones, St. Louis Park, Minn., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Dec. 12, 1951, Serial No. 261,297. 7 Claims. (Cl. 73-360.)



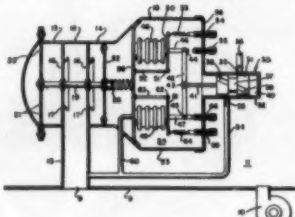
1. Temperature responsive apparatus comprising first and second substantially identical thermocouples having temperature sensing and reference junctions, said temperature sensing junctions being positioned to be responsive to a temperature to be measured, means associated with said reference junctions to maintain them at uniform and different temperatures, and means electrically connected to said thermocouples and having voltage comparing means therein operable in response to the ratio of the output voltages of said first and second thermocouples.

**2,696,120. TEMPERATURE INDICATING APPARATUS.** Orville J. Underwood, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Jan. 2, 1951, Serial No. 203,973. 5 Claims. (Cl. 73-360.)



1. Temperature indicating apparatus comprising, electronic controlling means having an input, motor means controlled by said controlling means in accordance with the signal applied to said input, potentiometer means having end terminals and a variable tap that is operated by said motor means when said controlling means receives an input signal, a first thermoelectric voltage generator comprising positive and negative output leads of a first and a second metal, circuit means connecting said positive lead to one of said end terminals of said potentiometer means, a second thermoelectric voltage generator comprising positive and negative output leads of a third and a fourth metal, said first and second generators being subjected to a common temperature to be indicated and having different temperature versus voltage characteristics, circuit means connecting the negative lead of said second generator to the other of said end terminals of said potentiometer means, means connecting the negative output lead of said first thermoelectric voltage generator to the positive output lead of said second thermoelectric voltage generator to form a terminal, circuit means connecting said last named terminal to the input of said electronic controlling means, circuit means connecting said tap to the input of said electronic controlling means to thereby apply to said electronic controlling means an input signal which is a function of the relative output voltages of said first and second generators and the position of said variable tap, said controlling means and said motor means being arranged to cause said variable tap to be positioned by said motor means to reduce said input signal substantially to zero whenever said input signal is different from zero, and indicating means including said variable tap for indicating the common temperature of said thermoelectric voltage generators.

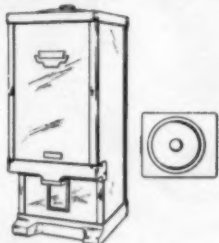
**2,696,153. PRESSURE CONTROL MECHANISM.** James Morgan Kemper, Hollywood, Calif., assignor to The Garrett Corp., Los Angeles, Calif., a corporation of California. Application Feb. 24, 1949, Serial No. 78,083. 20 Claims. (Cl. 98-1.5.)



6. In an enclosure pressure control mechanism having a control pressure chamber: a two way valve for connecting the control pressure chamber to a relatively high pressure source or a relatively low pressure source other than enclosure pressure; an absolute pressure responsive device; a differential pressure responsive device; means interconnecting said pressure responsive devices and also directly connecting same to said valve for positively actuating said valve in both directions; and means for rendering one of said pressure responsive devices inoperative when the other of said devices is operative and vice versa.

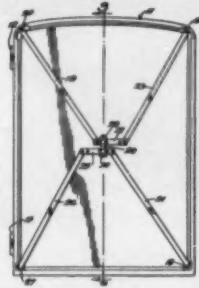
## DESIGNS

**173,619. ICE SHAVING MACHINE.** Seymour C. Kantor, Forest Hills, N. Y., and Emory W. Brockman, Hartsville, Pa. Application Aug. 26, 1953, Serial No. 26,591. Term of patent 7 years. (Cl. D55-1.)



## Week of December 14

**2,696,644. REFRIGERATOR DOOR BRACE.** Othel I. De Graw, Greenville, Mich., assignor to Gibson Refrigerator Co., Greenville, Mich., a corporation of Michigan. Application Jan. 10, 1951, Serial No. 205,403. 6 Claims. (Cl. 20-32.)

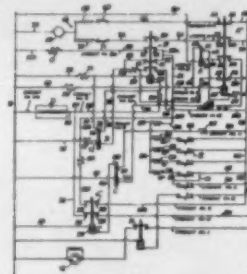


1. In combination, a door comprising a generally rectangular concavo-convex door pan composed of relatively flexible material and adapted to be supported from an inner lateral edge thereof, a plurality of tie members, two of said tie members extending inwardly from the top corners of the door and two tie members extending inwardly from the lower corners of the door, a bar connected to the inner ends of each pair of tie members, said bars lying in substantially the same vertical plane and being arranged in staggered relation with respect to each other, and adjustable connecting means connecting the upper bar adjacent the tie member leading to the upper inner corner thereof and the lower bar at a point adjacent the tie member leading to the lower outer corner of the door.

**2,696,715. AUTOMATIC VENTILATING AND COOLING SYSTEM.** Timothy J. Lehane, North Riverside, Ill., and Charles Edward Patrick Hall, Kingsbury, London, England, assignors to Vapor Heating Corp., Chicago, Ill., a corporation of Delaware. Application Jan. 7, 1953, Serial No. 330,034. 12 Claims. (Cl. 62-4.)

1. In an automatic ventilating and cooling system the combination with an air cooler of fixed capacity for delivering cooled air into an enclosure and an adjustable damper for by-passing variable quantities of uncooled air around the air

cooler to vary its effectiveness; of means for controlling the adjustment of said damper and the activation of said cooler comprising a damper closing relay for

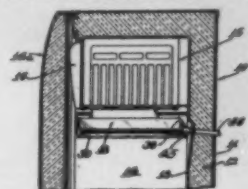


closing an energizing circuit for the damper actuator to impart a closing movement to the damper, a damper opening relay for closing an energizing circuit for the damper actuator to impart an opening movement to the damper, a cooler control relay for closing an energizing circuit to activate the cooler, separate damper closing and opening thermostats and a cooler control thermostat responsive to the temperature of the enclosure for controlling the energization of said damper closing, damper opening and cooler control relays, respectively, electrical heaters for applying auxiliary heat to the thermostats to adjust their functional settings, and energizing circuit means including a plurality of branches for connecting said heaters in parallel relation; one of said branches being connected through a de-energized open contact of the damper closing relay to the heater of the damper closing thermostat, whereby de-energization of the damper closing relay transfers the heating current from one thermostat heater to the heaters of the other thermostat so as to momentarily lower their temperature settings.

**2,696,716. DRIP TRAY INSERT.** Edwin M. Marks, Evansville, Ind., assignor to International Harvester Co., a corporation of New Jersey. Application July 14, 1951, Serial No. 238,815. 4 Claims. (Cl. 62-103.)

1. In a mechanical refrigerator, in combination: a cabinet defining a main food storage compartment maintained at non-freezing temperature; an evaporator cool-

ing unit exposed to said compartment; a shallow non-metallic pan member having a double-walled bottom with heat insula-



tion therebetween and being slidably mounted on the walls of said cabinet below said evaporator cooling unit; a metallic insert-like top cover member removably positioned within said pan; said insert being fashioned with a floor portion inclined from all directions to a low point proximate the center of the rear edge thereof, and having a drain spout projecting outwardly and downwardly from said low point; said insert having a ridge-like projection extending upwardly from the floor portion thereof substantially to the lower surface of the evaporator cooling unit; and resilient means interposed between said insert and said pan whereby the ridge of said insert is maintained in a heat exchange relation with the lower portion of said evaporator cooling unit.

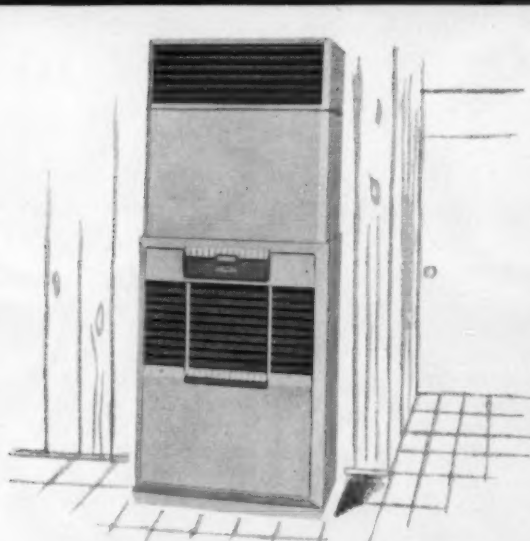
(To Be Continued)

## Pyle-National Directors Declare Cash Dividend

CHICAGO—The board of directors of Pyle-National Co., manufacturer of electrical and air conditioning equipment, declared a cash dividend on preferred stock of \$2 per share, payable April 1, for stockholders of record March 21, it was announced by H. V. Engh, president.

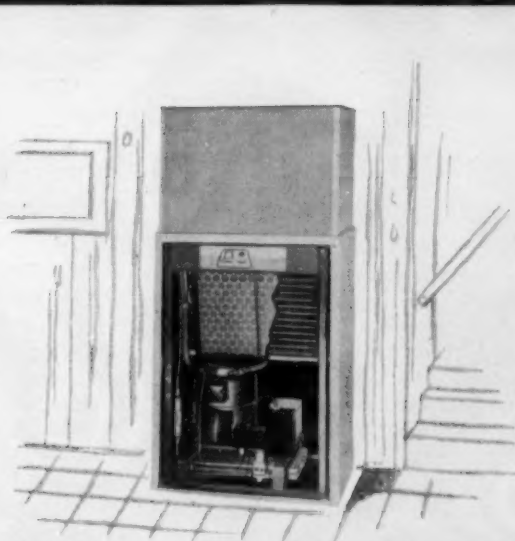
The board also declared a cash dividend on all common stock of 30 cents per share, payable April 1, for all stockholders of record March 21.

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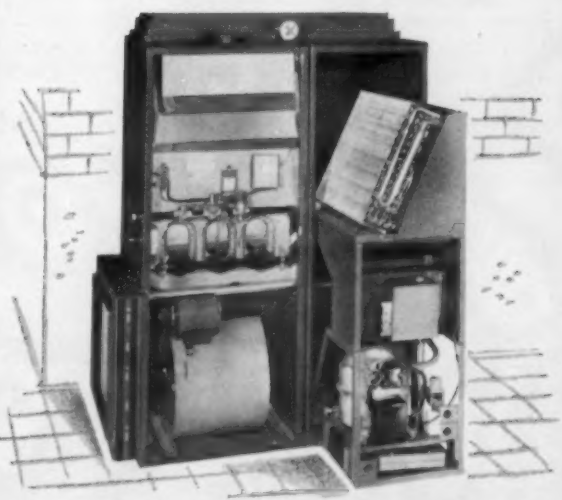
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3-14-55



## Norge Jan., Feb. Sales Triple 1954 Months

CHICAGO—Factory sales of Norge appliances in January and February tripled those of the corresponding 1954 period, according to Judson S. Sayre, president of Norge, a subsidiary of Borg-Warner Corp.

He said volume represented 301% of the combined two-month 1954 total.

February was the second best month in the company's history, topped only by this January's \$15,100,000 sales.

Home laundry equipment set the pace, Sayre said. Clothes dryer sales were more than four times those of the 1954 period. More automatic washers were sold in February than during the first two months in 1954. Refrigerator sales also showed substantial gains, he said.

### Tax Collector Ready To Take Some of the Fun from That 'Vacation Trip' You Won

DETROIT—We hate to be a wet blanket, but—

When you get home from that free trip to Bermuda or Hawaii as the guest of some manufacturer, you will find your local internal revenue agent waiting with his hand out.

The local office of the Internal Revenue Bureau has advised the NEWS that such trips are considered to be income for the purposes of taxation.

They are taxed on the basis of a "fair market value" for the trip—or what it would cost you to send yourself there, the tax spokesman declared.

He also asserted that he could see no conceivable way that the cost of such trips could be charged off, even partially, as a business expense!

Bon voyage!

## Rigging Firm and Union Agree--

(Concluded from Page 1, Col. 4)

Reading, president, said his company employs workers who are members of Machinery Movers, Riggers & Machinery Erectors Local Union No. 575, International Association of Bridge, Structural & Ornamental Ironworkers (AFL).

He said that last December, the company was retained to perform the hauling, rigging, and rough erecting of three refrigeration units in the Fisher Body plant. On

## Deepfreeze--

(Concluded from Page 1, Col. 5)

affiliation reportedly will not be in the appliance or home furnishings field.

Duggan was general sales manager of Deepfreeze from 1945 through 1949. He then joined Avco Mfg. Corp., serving as general sales manager of its American Kitchens Div. and later as general sales manager of major appliances for the Crosley Div. He rejoined Deepfreeze in 1953 as vice president and general manager.

In a letter to Deepfreeze distributors, Lott assured them of the continuity of the business relationships, with a minimum of inconvenience, until a successor to Duggan is appointed.

### 'Impressive Sales Gains' Reported by Deepfreeze

CHICAGO—Freezer and refrigerator business is chalking up impressive gains for the first 60 days of this year for Deepfreeze Appliance Div., Motor Products Corp., the company told distributors meeting here at the LaSalle hotel at the kick-off of the company's seven city, cross-country sales meetings.

J. A. Rishel, Jr., general sales manager, reported that freezer sales alone were up 22% over the similar last year period, while refrigerator sales have been boosted 51% for the first 60 days.

Rishel said the two major reasons for the sales gains are the widespread acceptance of the new Deepfreeze "Duplex," a combination freezer and refrigerator which has been in an oversold position for four months, and the growing popularity of the Deepfreeze food plan.

Backed by the largest advertising appropriation in the company's history and with its widest promotional support, the company is looking forward with high optimism to its greatest sales year, Rishel said.

or about Feb. 25, he stated, the company "was forcibly prevented from working at the plant . . . by the defendants."

The complaint charged that union members caused bricks, pipe, and other debris to be piled around the various machines and tools required by the plaintiff.

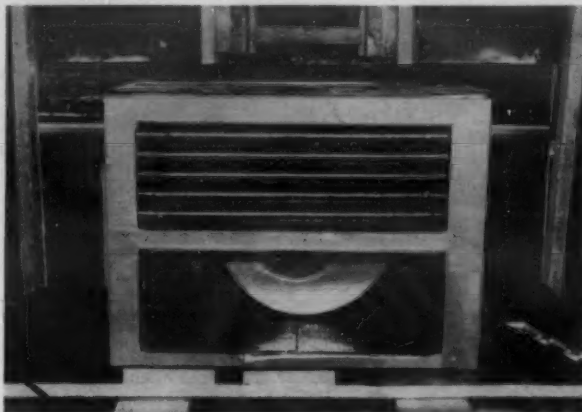
Also, it was charged, the company's employees were threatened by members of Local No. 58 with physical violence if they attempted to work on the refrigerating units.

The company then called its workers off the job and asked for a conference between the business agent representing its employees and a business agent of Local 58. Out of this meeting came a determination that the work of setting motors was within the jurisdiction of Local 58, it was stated.

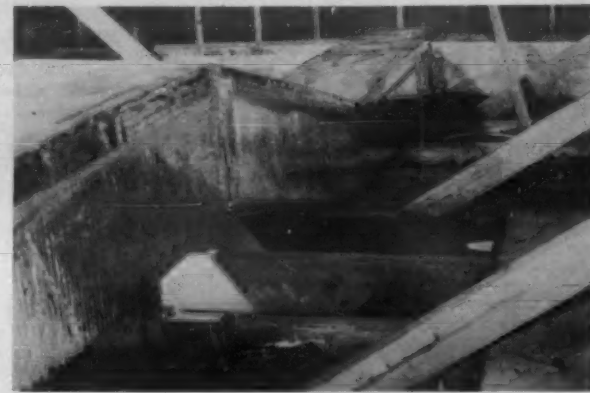
Upon being so advised, Reading said, the company asked the union to provide it with four electricians. He claimed the business agent of Local 58 told the company that since it was not a registered electrical contractor, the union would not supply the electricians and that the company would have to subcontract work to an electrical contractor.

Reading declared that because of Local 58's "illegal" actions and failure to provide workers, the company was forced to make idle three employees and four pieces of equipment. As a result, he asserted, the company was sustaining losses of \$371.40 a day.

The compromise agreement was reached in a hearing before Circuit Judge Frank Fitzgerald. The company agreed to advertise for electricians but said it would proceed with the job, using its own workers, if unsuccessful in its efforts to obtain the electricians, according to Judge Fitzgerald.



VORNADO residential unit setting in attic ready for ductwork.



GENERAL VIEW of completed ductwork in Vornado installation.

## Cleveland ASRE To Hear Of Iron Lung Project At March 15 Meeting

CLEVELAND—Development and operation on the air conditioned iron lung, a project of the Cleveland section of the American Society of Refrigerating Engineers, will be discussed at a meeting of the section in the Cleveland Engineering Section building at 8 p.m., Tuesday, March 15.

R. J. DeFasselle of Heisterkamp & DeFasselle and R. M. Thompson of Bryant Div. of Carrier Corp. will talk on the development and operation of the unit. David G. Miller of the medical staff of the City hospital will discuss the therapeutic advantages resulting from use of the device.

## Vornado Home Air Conditioner--

(Concluded from Page 1, Col. 5)

covered on the outside with a sheet of reinforced aluminum foil and coated on the inside with a hard finish flame resistant coating that gives maximum air velocity.

A template for use in cutting openings in the ceiling is furnished with the unit. The new ductwork is cut to length by using a light saw or heavy knife.

The unit is powered with twin commercial compressors in two separate systems. The compressors can be operated together or one can be cut off when proper temperature is secured. Thermostatic controls are available to provide temperature control.

The twin systems in the unit are hermetically sealed and no addi-

tional refrigerant lines, valves, or controls are required. Low speed motor operation, squirrel cage blower, and one piece condenser fan blade along with rubber mounted motor and compressors make the unit quiet in operation.

A three position switch marked "off," "low-cool," and "high-cool," handles the unit's operation.

The new Vornado unit can, in most instances, be incorporated in existing furnaces where proper ductwork is available.

### To Cool New Luxury Hotel

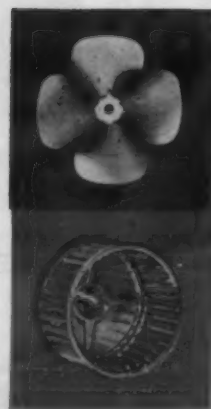
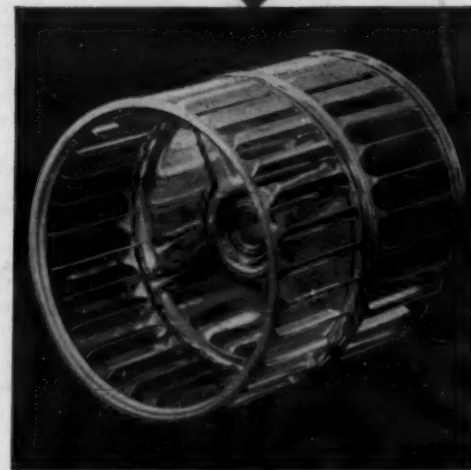
HOT SPRINGS, Ark.—Garland Anthony has announced plans for the construction of a completely air conditioned \$2,500,000 luxury resort hotel at Hot Springs.

## Quiet Operation High Air Delivery Uniform Construction

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Torrington AIRotor blower wheels are available in three general categories: single wheel, double wheel, (illustrated) and the "X Type" double inlet wheel. Sizes range from 1½" in diameter and ¾" in width to 11" in diameter and 11½" in width. Special spline, jaw, or short hubs are also available.

Torrington AIRotors represent only a small portion of the unusually broad variety of air-impellers which Torrington is currently equipped to produce for heating, ventilating and air-conditioning equipment. This product range, plus Torrington's great capacity, can provide... quickly and at low cost... the fan blade or blower wheel that's best suited to your air-moving requirements. Torrington also maintains a complete research testing service for assistance on any design problem relating to air flow, sound and vibration. This service is always available to you and can be of particular value in the early stages of product design and development. No one has more experience in the design and production of air-impellers than Torrington. Nowhere else can your dollar buy so much in terms of product quality and customer service.



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The acid test of any product is performance. That's why you will find Larkin products used so widely for so many different refrigeration and air-conditioning applications. Users know from past experience that they can count on Larkin for top performance—day in, day out—year in, year out.

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